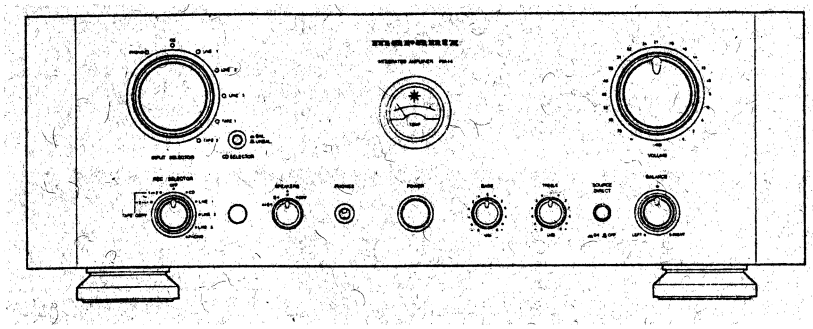
Service Manual

74 PM14 /02B/02G

PM-14F N

Integrated amplifier



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Please use this service manual with refer · user guide (D.F.U.) without fail.
修理の際は、必ず取扱説明書を準備し操作方)上作業を行ってください。

marantz®

PCS 99 516

model PM-14

4822 725 51175
First Issue 1998.06
289J855010 BBE

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

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MARANTZ AMERICA, INC.
440 MEDINAH ROAD
ROSELLE, ILLINOIS 60172
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FAX : 630 - 307 - 2687

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FAX : 630 - 820 - 8103

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PHONE : 514 - 457 - 4044
FAX : 514 - 457 - 5524

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PHONE : +82 - 2 - 323 - 2155
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CAIXA POSTAL 21462
CEP 04698-970
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PHONE : 0800 - 123123 (Discagem Direta Gratuita)
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WANGBURAPAPIROM, PHRANAKORN,
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PHONE : +66 - 2 - 222 - 9181
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FAX : +61 - 3 - 9429 - 9309

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営業本部 〒150-0022
東京都渋谷区恵比寿南 1 - 11 - 9

SINGAPORE

FORWARD MARKETING (S) PTE. LTD.
23, LORONG 8, TOA PAYOH,
SINGAPORE 319257.
PHONE : +65 2583640
FAX : +65 3564047

SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard N0. 1492.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

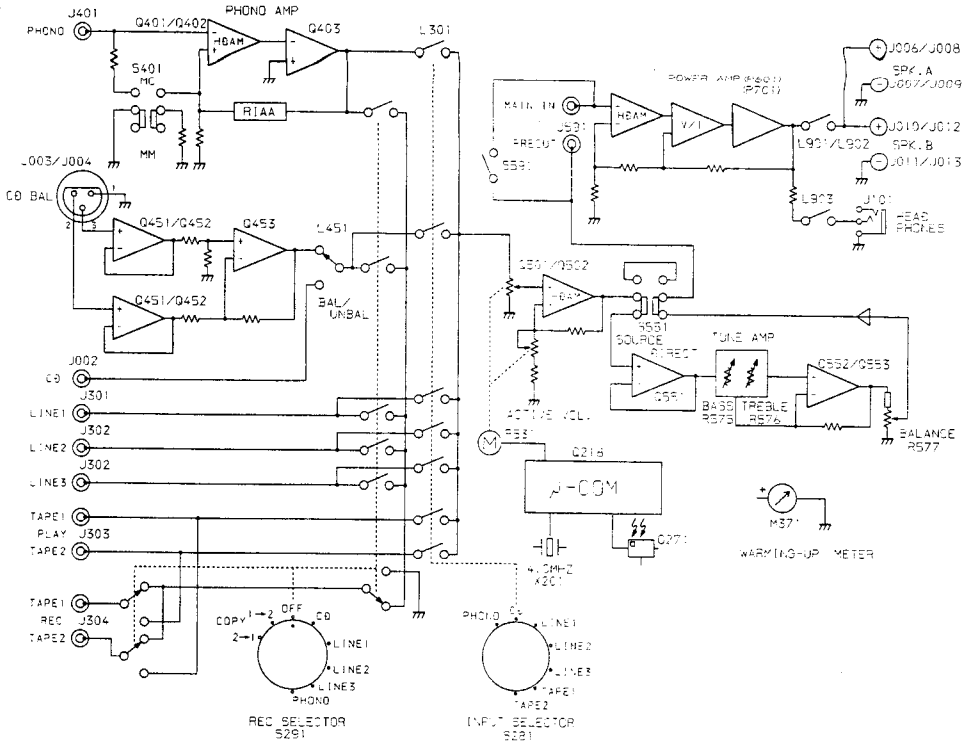
980218ACT

1. TECHNICAL SPECIFICATIONS

Rated power output (20 Hz to 20 kHz, 2CH simultaneous drive)	100 W x 2 (8 Ω load)
	160 W x 2 (6 Ω load)
	200 W x 2 (4 Ω load)
Total harmonic distortion (20 Hz to 20 kHz, 2CH drive, 8 Ω load)	0.008 %
Cross-modulation distortion (SMPTE)	0.008 %
Output bandwidth (8 Ω load, 0.04 %)	10 Hz to 50 kHz
Frequency response (CD, SOURCE DIRECT)	5 Hz to 100 kHz, +0/-1 dB
Damping factor (8 Ω load, 20 Hz to 10 kHz)	180
Input sensitivity/input impedance	
PHONE (MC)	250 μV/100 Ω
PHONE (MM)	2.8 mV/47 kΩ
HIGH LEVEL	200 mV/10 kΩ
MAIN IN	2 V/100 kΩ
Output voltage/output impedance	
PRE OUT	2 V/900 Ω
Maximum allowable PHONE input (1 kHz)	
MC	12 mV
MM	130 mV
RIAA deviation (20 Hz to 20 kHz)	±0.2 dB
S/N (IHF A network, input shorted)	
PHONE (MC)	76 dB
PHONE (MM)	90 dB
HIGH LEVEL	110 dB
Tone control	
BASS (100 Hz)	±8 dB
TREBLE (10 kHz)	±8 dB
Supply voltage	
/02 version	230 V AC, 50 Hz
F version	100 V AC, 50/60 Hz
Power consumption	300 W
Dimensions (Maximum)	
Width	458 mm
Height	166 mm
Depth	464 mm
Weight	23.0 kg
Accessories	
Remote control unit (RC-17PM)	x 1
Dimensions	
Width	44 mm
Height	239 mm
Depth	17.5 mm
Weight (without batteries)	189 g
SUM-4 (R6/ "AA" size) dry cell battery	x 2

Design and specifications are subject to change without notice.

2. BLOCK DIAGRAM



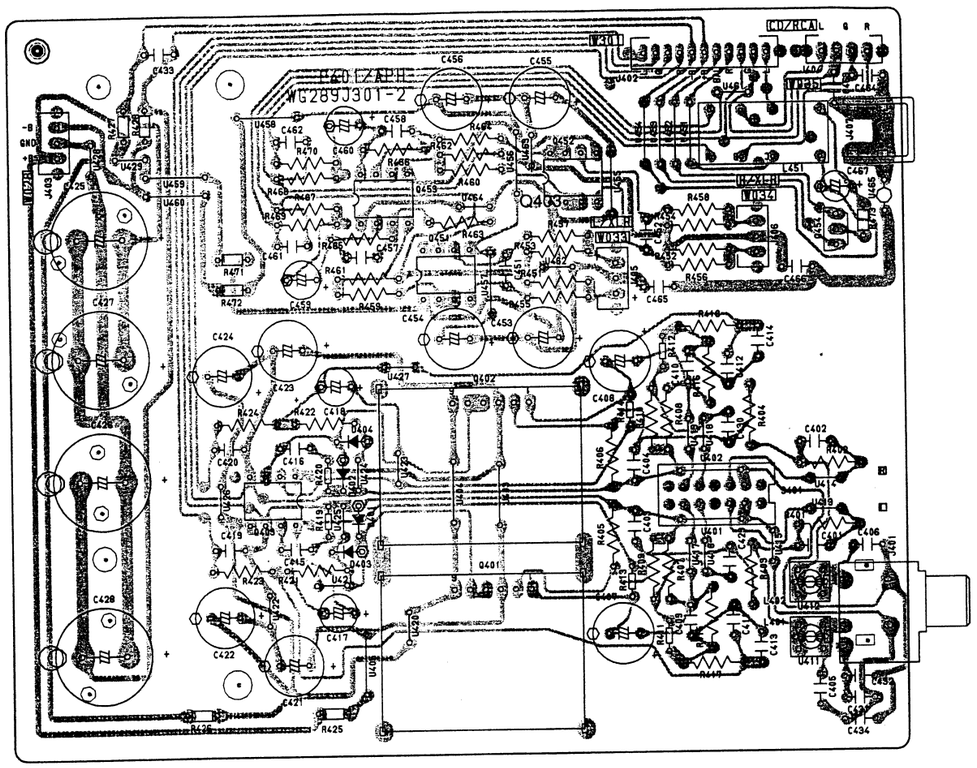
3. TEST EQUIPMENT REQURED FOR SERVICING

Item 項　目	Use 使 用 方 法
Distortion Analyzer 歪率計	Distortion measurements 歪の測定
Audio Oscillator 低周波発振器	Sinewave and squarewave signal source 正弦波及び矩形波の信号源
AC VTVM AC VTVM	Voltage measurements (AC) 交流電圧の測定
Oscilloscope オシロスコープ	Waveform analysis and trouble shooting and ASO alignment 波計分析、トラブルシューティング及びASOの調整
DC VTVM DC VTVM	Voltage measurements (DC) 直流電圧の測定
AC Wattmeter 交流ワットメーター	Monitors primary power to amplifier アンプの一次側消費電力のモニター
Line Voltmeter 電源電圧計	Monitors poterntial of primary power to amplifier アンプの一次側消費電圧のモニター
Vanable Autotransformer スライダック	Adjust level of primary power to amplifier アンプの一次側電圧の調節
Circuit Tester テスター	Trouble shooting トラブルシューティング
Shorting Plug ショート用プラグ	Shorts amplifier input to eliminate noise pickup 雑音を拾わないようにアンプ入力を短絡する

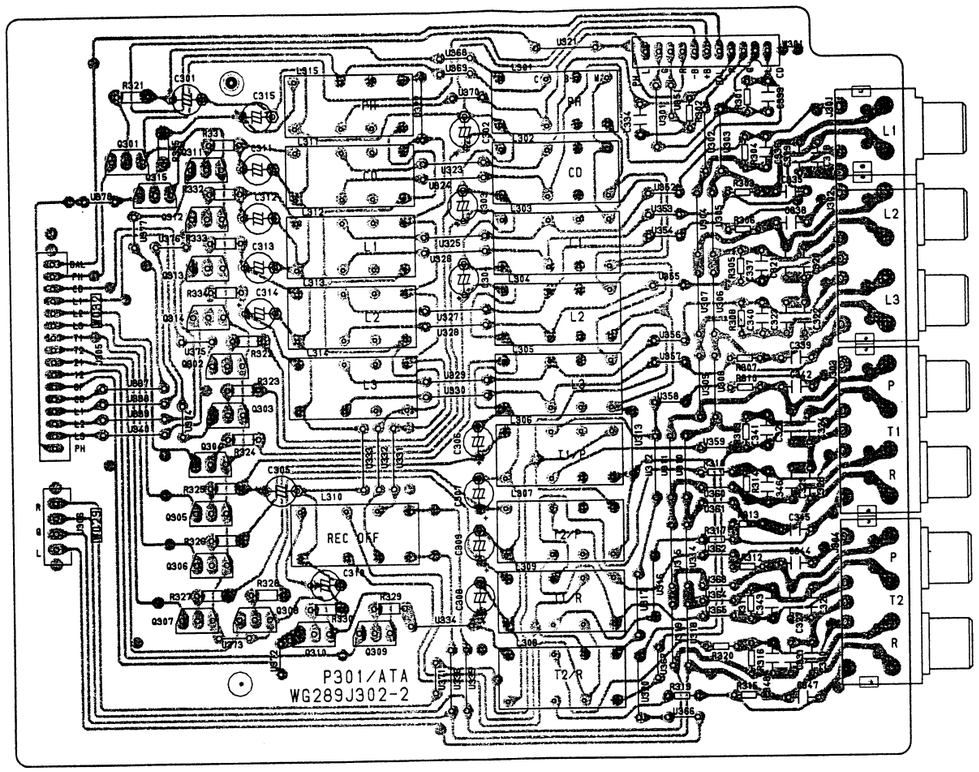
4. SCHEMATIC DIAGRAM AND PARTS LOCATION (Pattern Side)

P401

Q459
Q451
Q452
Q454
Q402
Q401
Q403

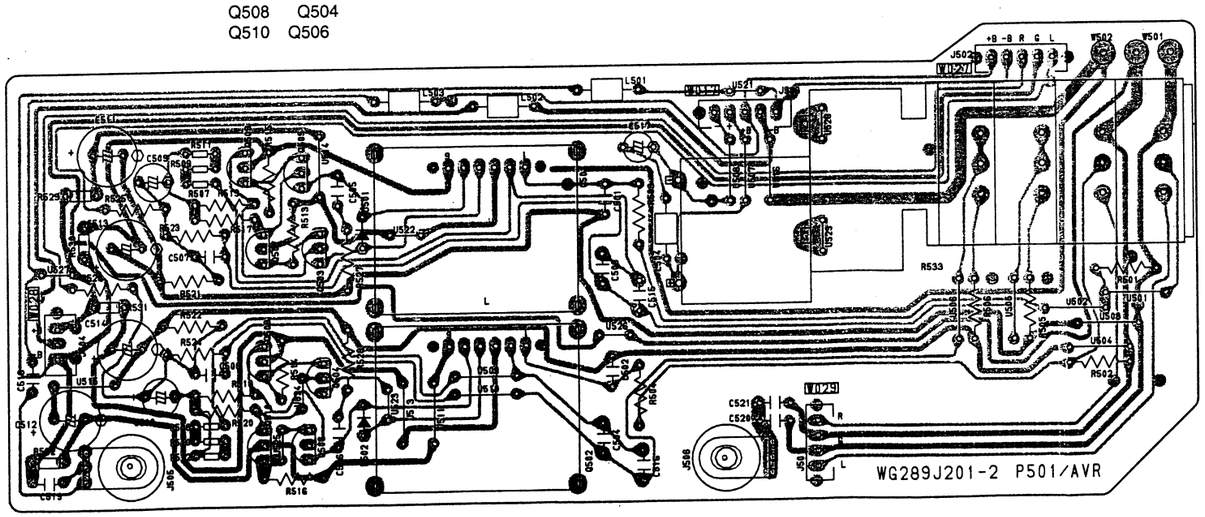


P301 Q301 Q311 - Q315
Q302 - Q308
Q310 Q311

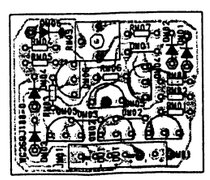


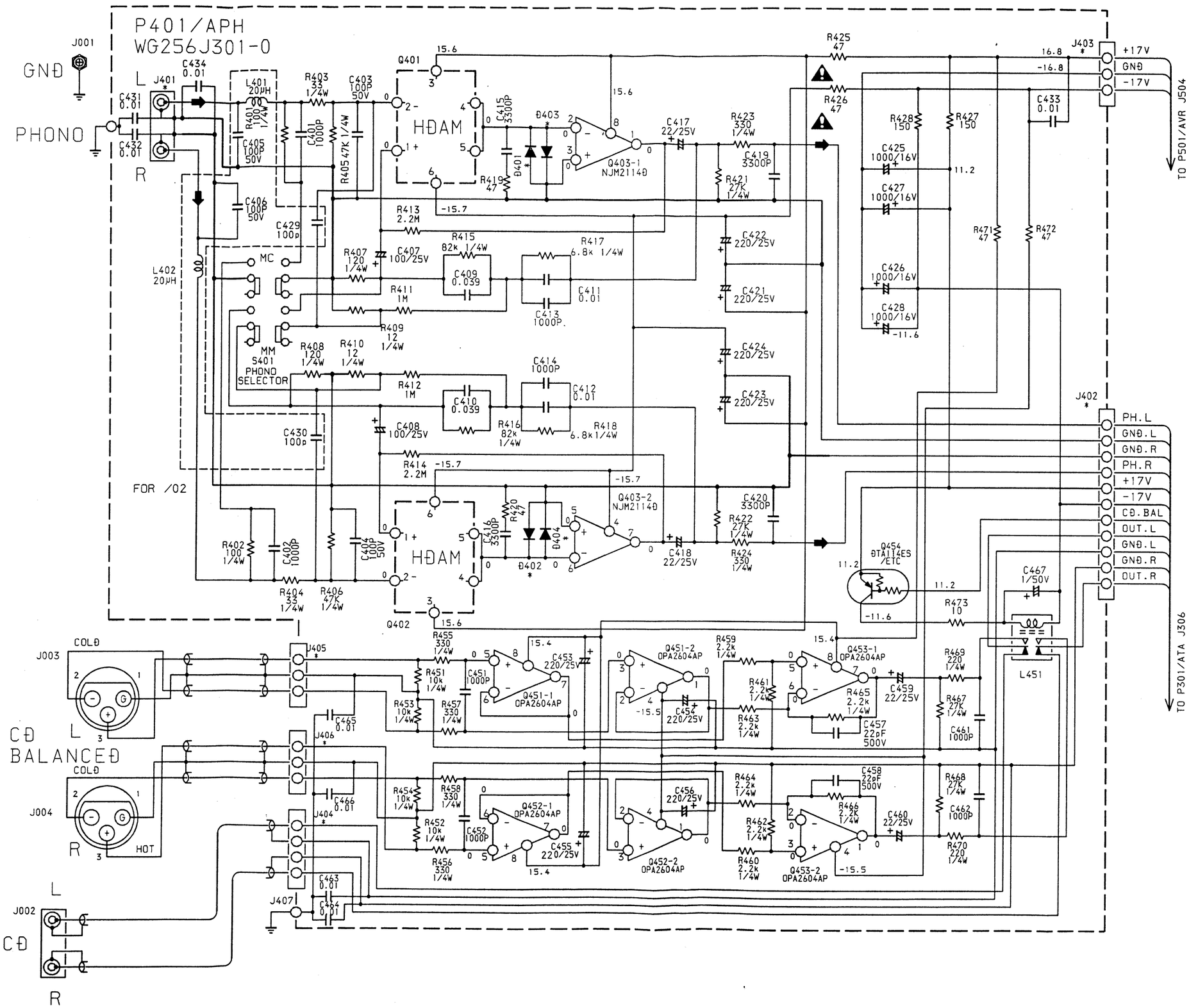
P501

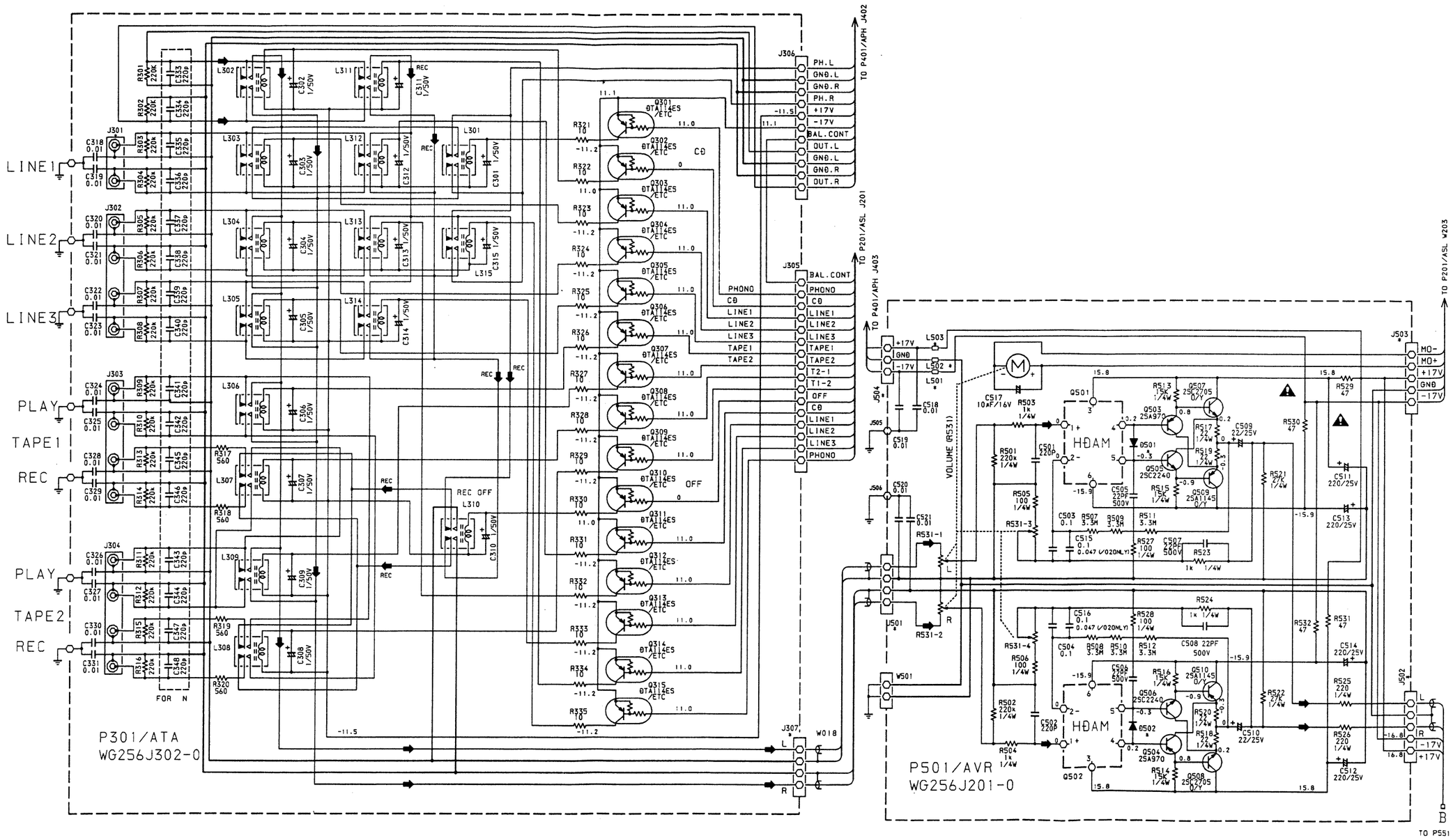
Q509 Q505
Q507 Q503
Q508 Q504
Q510 Q506

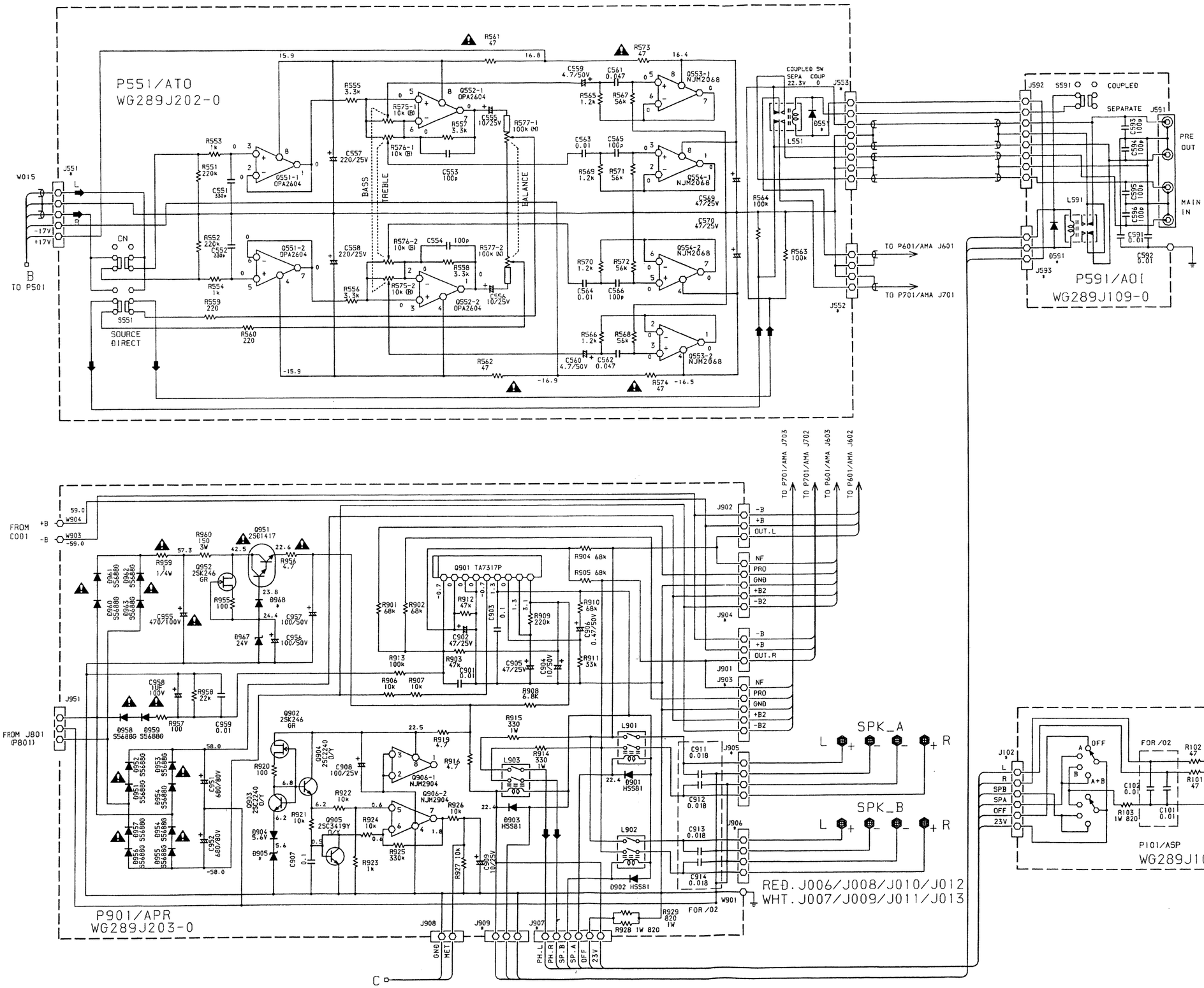


HDAM




P401/APH
WG256J301-0
J001
GNÐ
PHONO
L
R
J401
C434 0.01
C431 0.01
C432 0.01
L401 20µH
R401 100 1/4W
C405 100P 50V
R403 33 1/4W
C403 100P 50V
C401 1000P
R405 47K 1/4W
C406 100P 50V
C429 100p
L402 20µH
MC
MM
S401
PHONO SELECTOR
R407 120 1/4W
C407 100/25V
R408 120 1/4W
R410 12 1/4W
R409 12 1/4W
R411 1M
R412 1M
R413 2.2M
R414 2.2M
R415 82k 1/4W
C409 0.039
C410 0.039
R417 6.8k 1/4W
C411 0.01
C413 1000P
C414 1000P
C412 0.01
R418 6.8k 1/4W
R416 82k 1/4W
C408 100/25V
C430 100p
FOR /02
R402 100 1/4W
C402 1000P
R404 33 1/4W
R406 47K 1/4W
C404 100P 50V
Q401
Q402
HÐAM
C415 3300P
C416 3300P
D401
D402
D403
D404
R419 47
R420 47
Q403-1 NJM2114Ð
Q403-2 NJM2114Ð
C417 22/25V
C418 22/25V
R423 330 1/4W
C419 3300P
R421 27k 1/4W
R422 27k 1/4W
C420 3300P
R424 330 1/4W
R425 47
R426 47
C422 220/25V
C421 220/25V
C424 220/25V
C423 220/25V
R428 150
R427 150
C425 1000/16V
C427 1000/16V
C426 1000/16V
C428 1000/16V
R471 47
R472 47
C433 0.01
J403
+17V
GNÐ
-17V
TO P501/AVR J504
J402
PH.L
GNÐ.L
GNÐ.R
PH.R
+17V
-17V
CÐ.BAL
OUT.L
GNÐ.L
GNÐ.R
OUT.R
Q454 ÐTA114ES /ETC
C467 1/50V
R473 10
L451
TO P301/ATA J306
J003
COLÐ
CÐ BALANCEÐ
L
J004
R
HOT
J002
CÐ
J405
J406
J404
J407
C465 0.01
C466 0.01
C463 0.01
C464 0.01
R451 10k 1/4W
R453 10k 1/4W
R457 330 1/4W
C451 1000P
Q451-1 OPA2604AP
C453 220/25V
R454 10k 1/4W
R452 10k 1/4W
R456 330 1/4W
C452 1000P
Q452-1 OPA2604AP
C455 220/25V
R458 330 1/4W
Q451-2 OPA2604AP
C454 220/25V
Q452-2 OPA2604AP
C456 220/25V
R459 2.2k 1/4W
R461 2.2k 1/4W
R463 2.2k 1/4W
Q453-1 OPA2604AP
C459 22/25V
C457 22pF 500V
R465 2.2k 1/4W
R464 2.2k 1/4W
R462 2.2k 1/4W
R460 2.2k 1/4W
Q453-2 OPA2604AP
C458 22pF 500V
R466 2.2k 1/4W
C460 22/25V
R469 220 1/4W
R467 27k 1/4W
C461 1000P
R468 27k 1/4W
C462 1000P
R470 220 1/4W
15.6
15.4
-15.7
-15.5
16.8
-16.8
11.2
-11.6


LINE1
LINE2
LINE3
PLAY
TAPE1
REC
PLAY
TAPE2
REC
FOR N
P301/ATA
WG256J302-0
TO P401/APH J402
TO P201/ASL J201
TO P401/APH J403
TO P201/ASL W203
PHONO
CD
LINE1
LINE2
LINE3
TAPE1
TAPE2
T2-1
T1-2
OFF
REC OFF
VOLUME (RS31)
HĐAM
P501/AVR
WG256J201-0
TO P551


P551/ATO
WG289J202-0
W015
J551
L
R
-17V
+17V
B
TO PS01
CN
S551
SOURCE
DIRECT
R551 220k
R552 220k
R553 1k
R554 1k
C551 330p
C552 330p
Q551-1 OPA2604
Q551-2 OPA2604
R555 3.3k
R556 3.3k
R557 3.3k
R558 3.3k
R559 220
R560 220
C553 100p
C554 100p
C555 10/25V
C556 10/25V
C557 220/25V
C558 220/25V
R575-1 10k (B)
R576-1 10k (B)
R577-1 100k (M)
R575-2 10k (B)
R576-2 10k (B)
R577-2 100k (M)
Q552-1 OPA2604
Q552-2 OPA2604
BASS
TREBLE
BALANCE
R561 47
R562 47
R573 47
R574 47
15.9
16.8
16.4
-15.9
-16.9
-16.5
C559 4.7/50V
C560 4.7/50V
C561 0.047
C562 0.047
R565 1.2k
R567 56k
R569 1.2k
R571 56k
R570 1.2k
R572 56k
R566 1.2k
R568 56k
C563 0.01
C565 100p
C564 0.01
C566 100p
Q553-1 NJM2068
Q554-1 NJM2068
Q554-2 NJM2068
Q553-2 NJM2068
C568 47/25V
C570 47/25V
COUPLED SW
SEPA COUP
22.3V 0
D551
L551
J553
J552
R564 100k
R563 100k
TO P601/AMA J601
TO P701/AMA J701
J592
S591
COUPLED
SEPARATE
J591
PRE
OUT
MAIN
IN
L591
D591
C593 100p
C594 100p
C595 100p
C596 100p
C591 0.01
C592 0.01
J593
P591/A01
WG289J109-0
TO P703/AMA J703
TO P702/AMA J702
TO P603/AMA J603
TO P602/AMA J602
FROM C001
+B
-B
W904
W903
59.0
-59.0
R960 150 3W
R959 1/4W
R956 4.7
R955 100
R957 100
R958 22k
C955 470/100V
C956 100/50V
C957 100/50V
C958 1UF 100V
C959 0.01
D951 2SD1417
D952 2SK246 GR
D961 S5688G
D962 S5688G
D963 S5688G
D960 S5688G
D967 24V
D968
D958 S5688G
D959 S5688G
D951 S5688G
D952 S5688G
D953 S5688G
D954 S5688G
D955 S5688G
D956 S5688G
D957 S5688G
C951 680/80V
C952 680/80V
J951
FROM J801
(P801)
Q902 2SK246 GR
Q903 2SC2240 O/Y
Q904 2SC2240 O/Y
Q905 2SC3419Y O/Y
R920 100
R921 10k
R922 10k
R923 1k
R924 10k
R925 330k
R926 10k
R927 10k
C907 0.1
C908 100/25V
C909 10/25V
D904 5.6V
D905
R919 4.7
R916 4.7
Q906-1 NJM2904
Q906-2 NJM2904
R915 330 1W
R914 330 1W
L903
L901
L902
D903 HS5B1
D901 HS5B1
D902 HS5B1
C911 0.018
C912 0.018
C913 0.018
C914 0.018
J905
J906
SPK_A
SPK_B
L
R
RED. J006/J008/J010/J012
WHT. J007/J009/J011/J013
W901
R929 820 1W
R928 1W 820
FOR /02
J908
J909
J907
GND
MET
PH.L
PH.R
SP.B
SP.A
OFF
23V
C
P901/APR
WG289J203-0
J902
J904
J901
J903
-B
+B
OUT.L
OUT.R
NF
PRO
GND
+B2
-B2
R904 68k
R905 68k
R901 68k
R902 68k
R910 68k
R912 47k
R903 47k
R909 220k
R913 100k
R906 10k
R907 10k
R908 6.8k
R911 33k
C901 0.01
C902 47/25V
C903 0.1
C904 10/25V
C905 47/25V
C906 0.47/50V
Q901 TA7317P
J102
L
R
SPB
SPA
OFF
23V
A
B
OFF
A+B
FOR /02
R102 47
R101 47
J101
C102 0.01
C101 0.01
R103 1W 820
W102
PHONES
P101/ASP
WG289J106-0

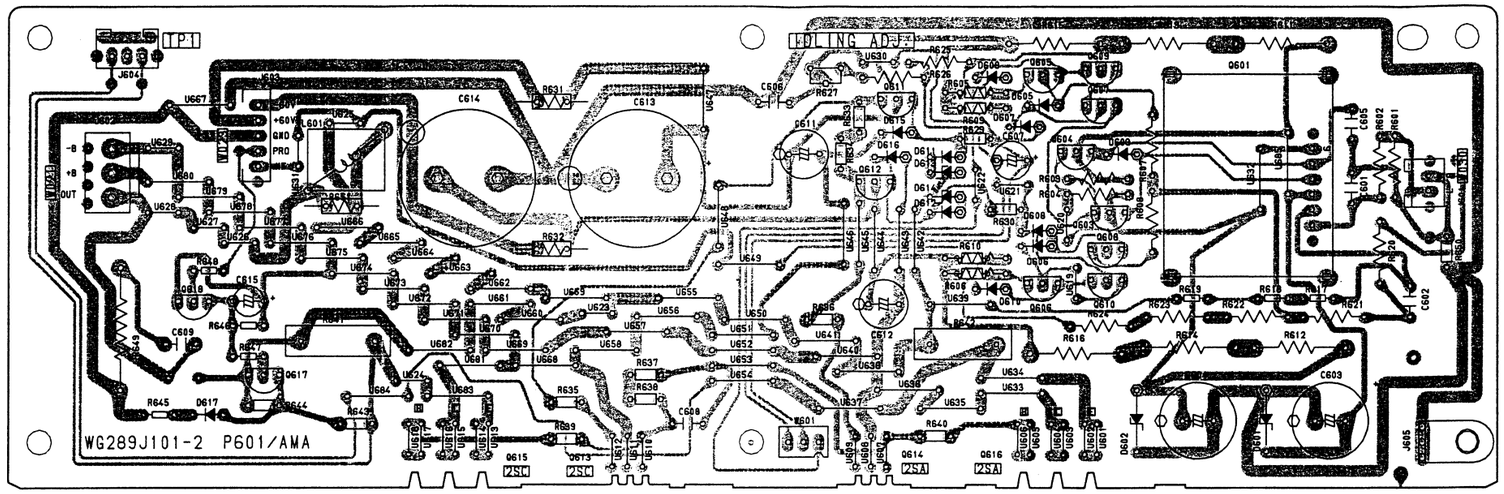
P601

Q618

Q617 Q615 Q613 Q614

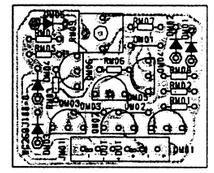
Q611
Q612

Q605 Q609
Q607
Q604 Q603
Q606 Q608
Q616 Q610



P651
Q602

HDAM



P701

Q709 Q705
Q707
Q703 Q704
Q708 Q706
Q710 Q716

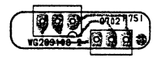
Q711
Q712
Q714

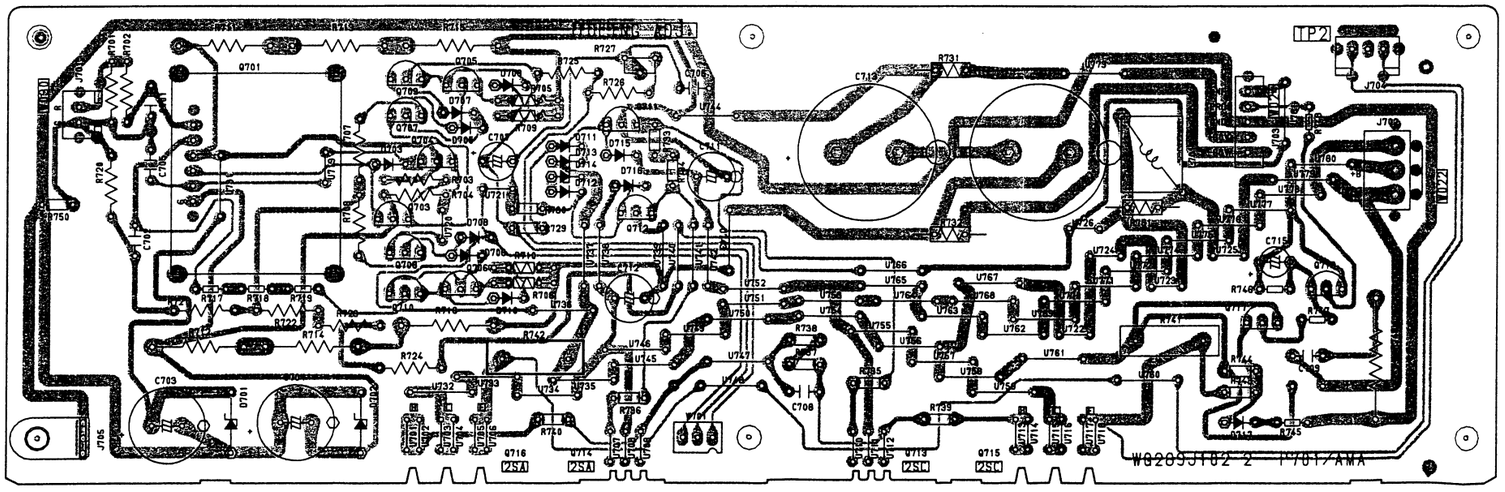
Q713

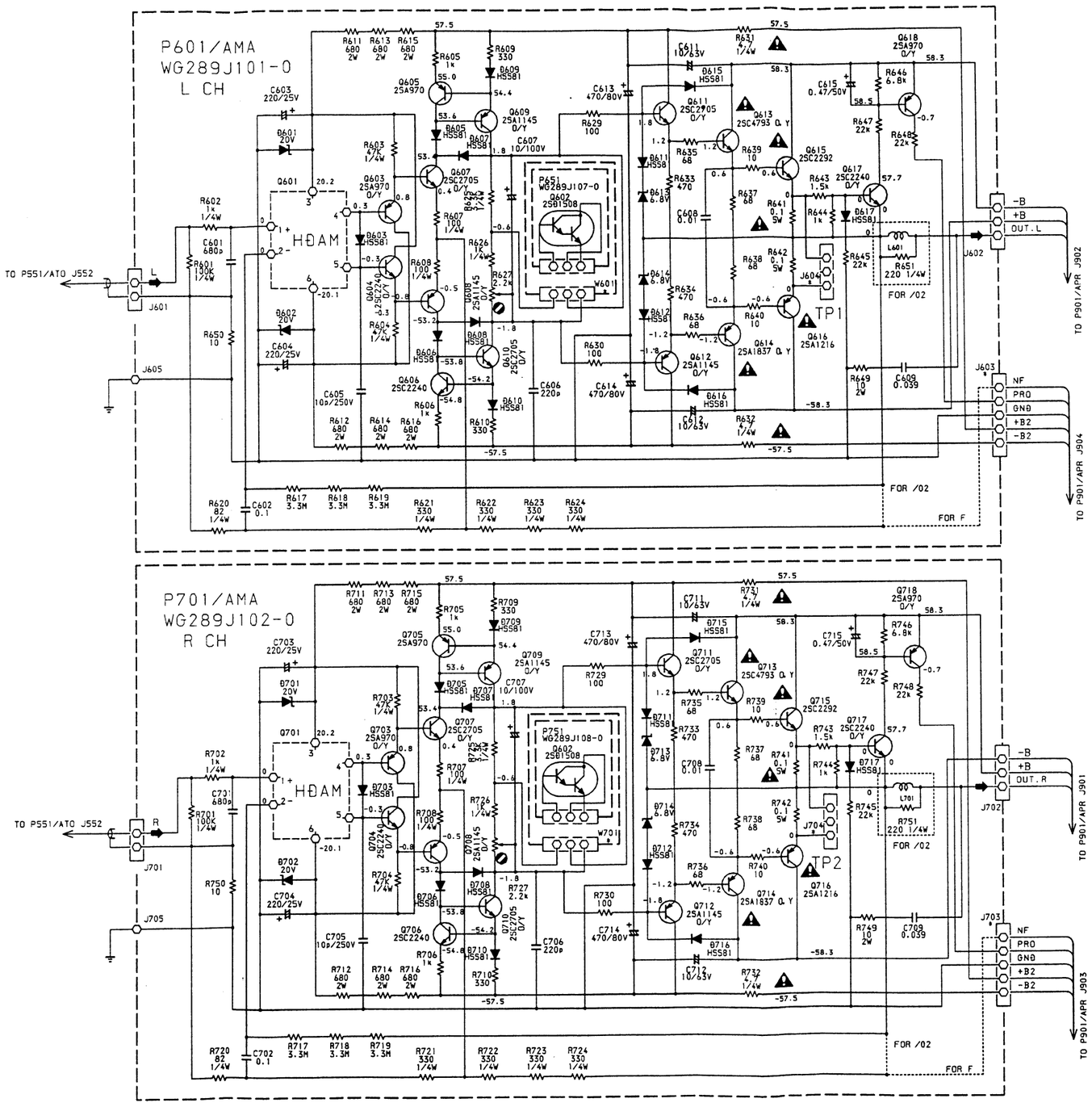
Q715

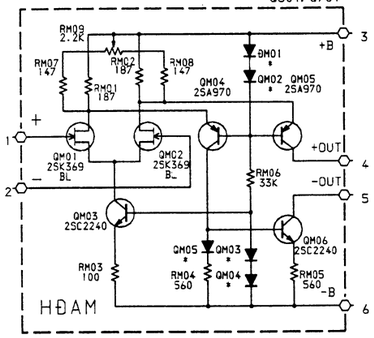
Q717 Q718

P751
Q702






P601/AMA
WG289J101-0
L CH
P701/AMA
WG289J102-0
R CH
HÐAM
TO P551/ATO J552
TO P901/APR J902
TO P901/APR J904
TO P901/APR J903
FOR /02
FOR F
TP1
TP2
-B
+B
OUT.L
OUT.R
NF
PRO
GND
+B2
-B2


Q601, Q701
HÐAM
+B
-B
+OUT
-OUT

P201

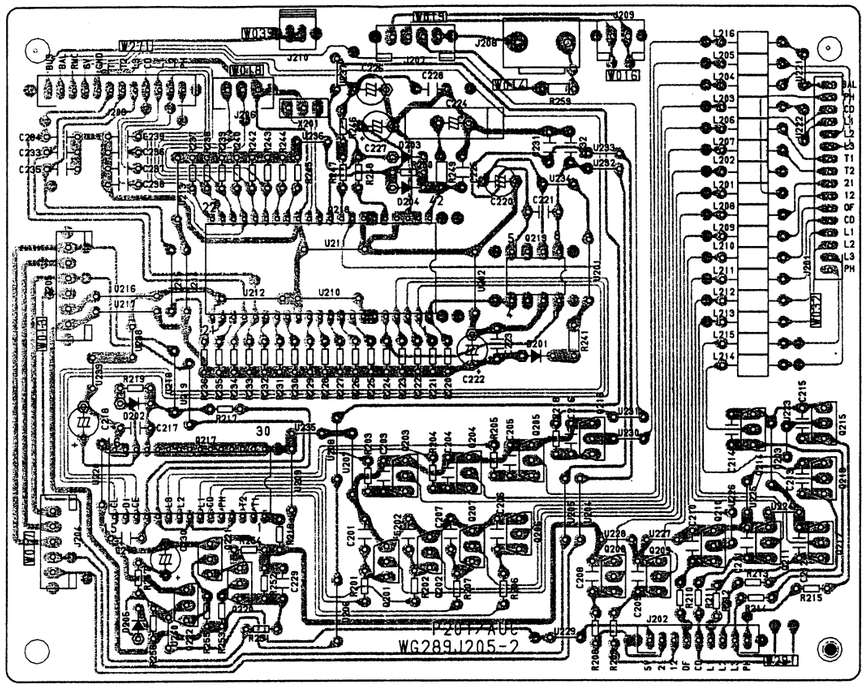
Q218 Q219

Q214 Q215

Q203 Q204 Q205 Q216 Q213

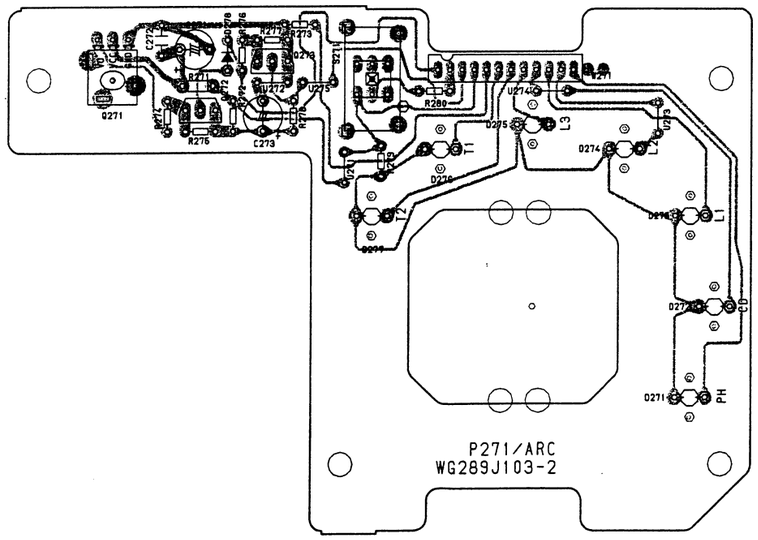
Q221 Q201 Q202 Q207 Q206 Q208 Q209 Q210 Q211 Q212

Q221 Q220

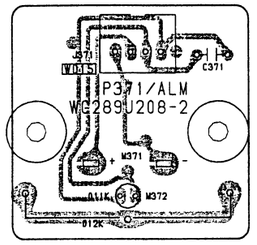


P271 Q213

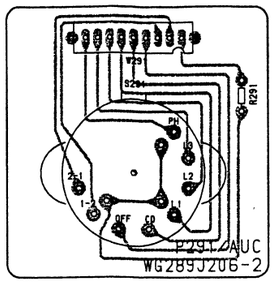
Q212



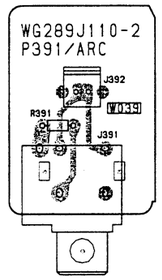
P371



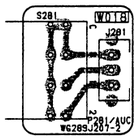
P291



P391

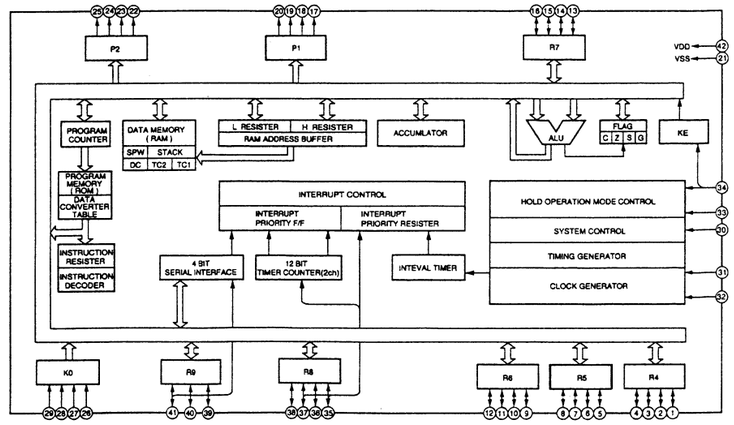


P281



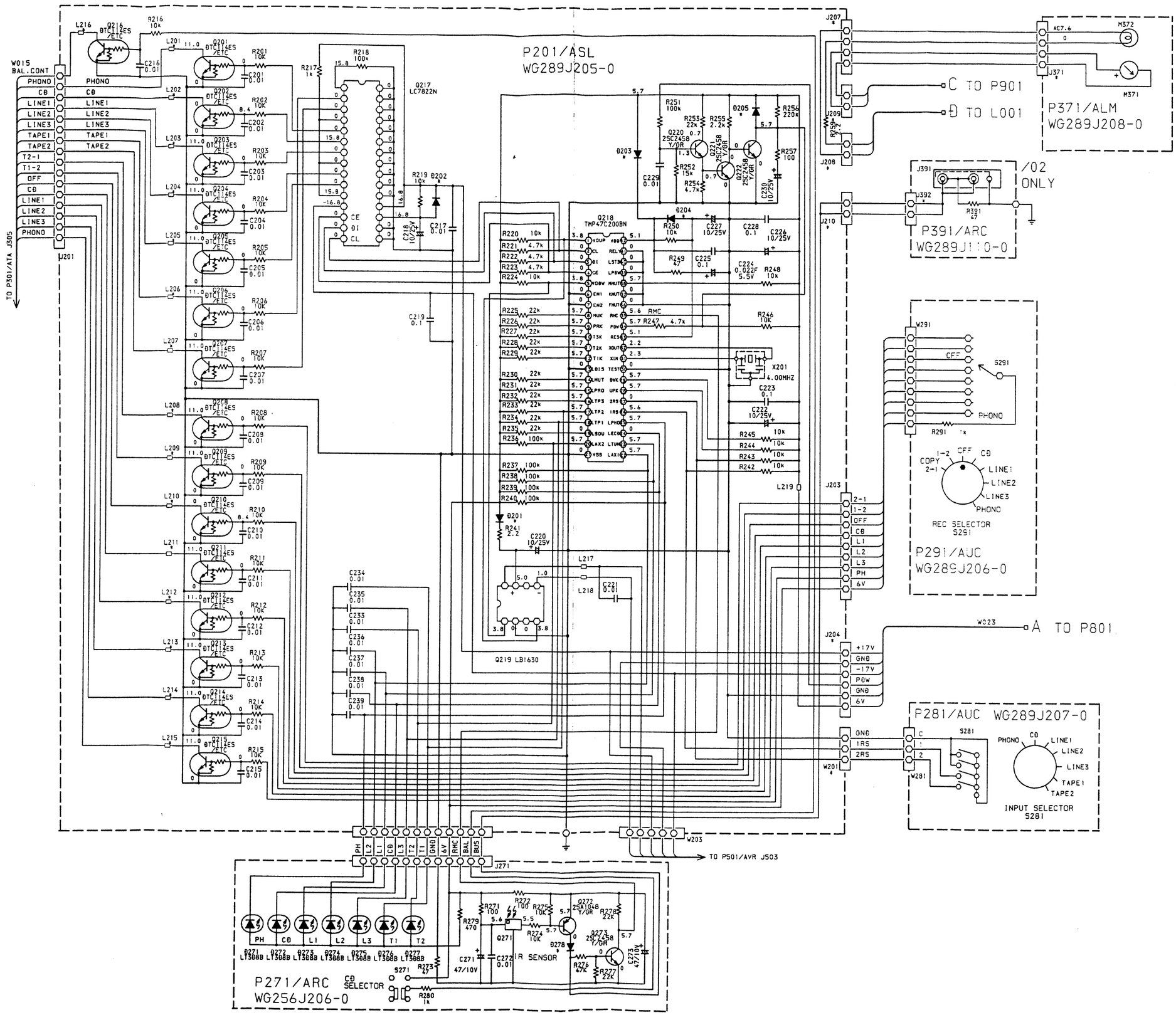
MICROPROCESSOR

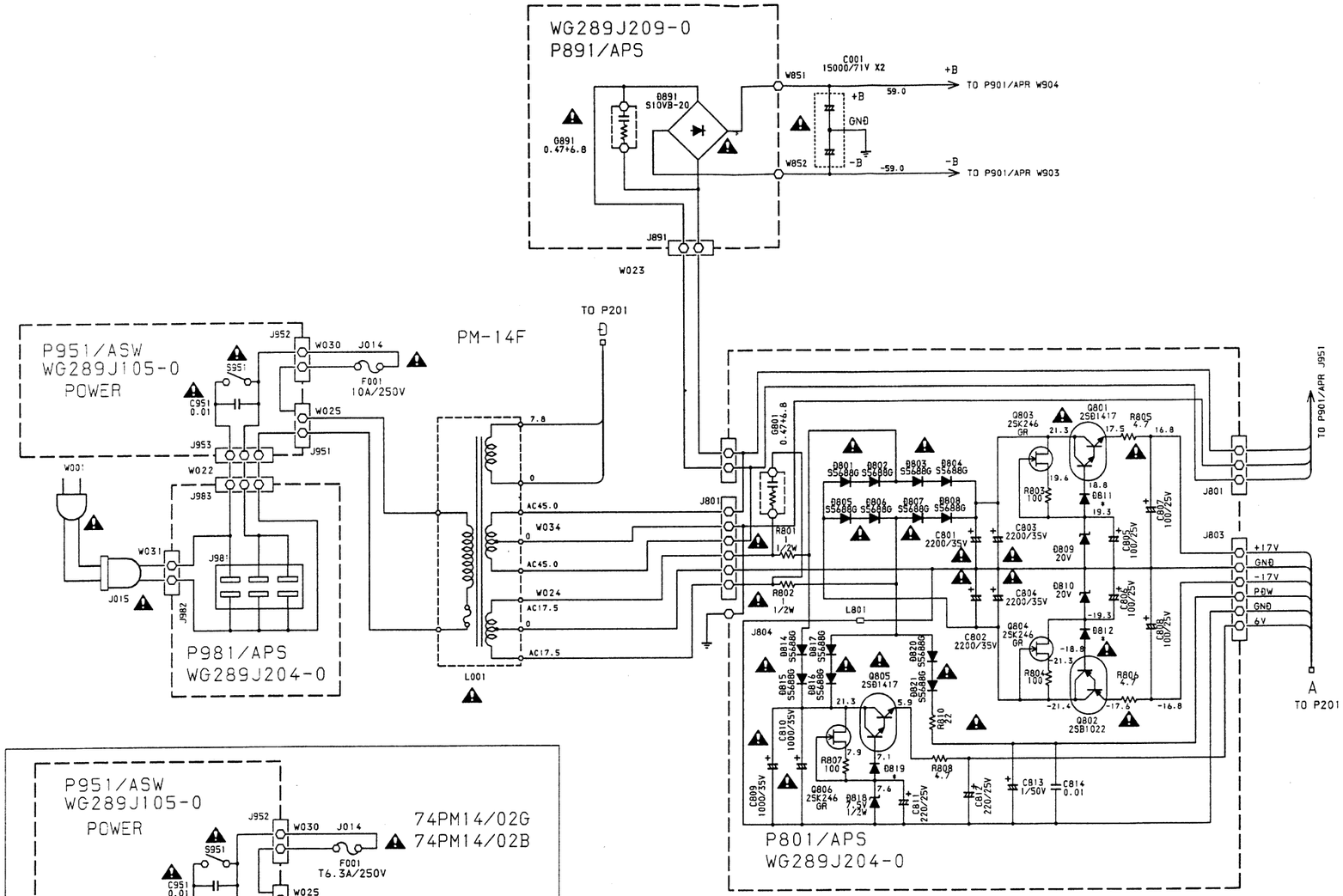
Q218 : TMP47C200BN

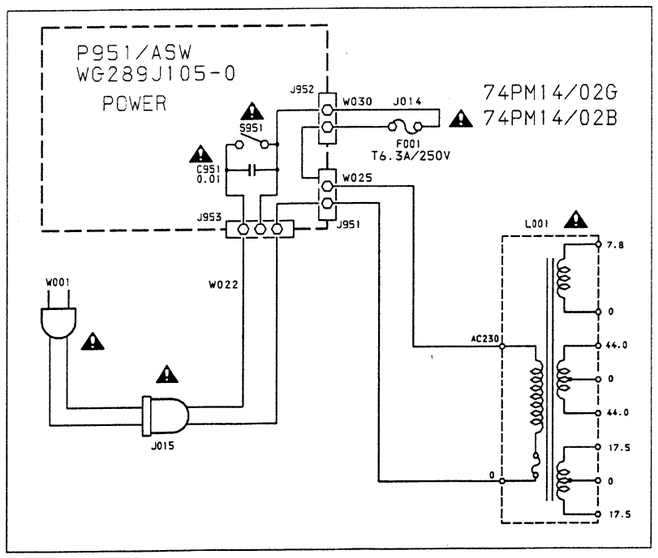


PIN NO.	PORT NAME		I/O	ACT	FUNCTION
1	R40	VOUP	O	L	VOLUME CONTROL (UP)
2	R41	CL	O	H	SERIAL OUTPUT (CLOCK)
3	R42	DI	O	H	SERIAL OUTPUT (DATA)
4	R43	CE	O	H	SERIAL OUTPUT (ENABLE)
5	R50	VODW	O	L	VOLUME CONTROL (DOWN)
6	R51	EN1	I	-	MODEL SELECT #1
7	R52	EN2	I	-	MODEL SELECT #2
8	R53	MUK	I	L	KEY INPUT MUTE
9	R60	PRK	I	-	KEY INPUT PROCESSOR
10	R61	T3K	I	L	KEY INPUT TAPE3
11	R62	T2K	I	L	KEY INPUT TAPE2
12	R63	T1K	I	L	KEY INPUT TAPE1
13	R70	LDIS	O	L	LED DISPLAY OTHER
14	R71	LMUT	O	L	LED DISPLAY MUTE
15	R72	LPRO	O	L	LED DISPLAY PROCESSOR
16	R73	LTP3	O	L	LED DISPLAY TAPE3
17	P10	LTP2	O	L	LED DISPLAY TAPE2
18	P11	LTP1	O	L	LED DISPLAY TAPE1
19	P12	LSOU	O	L	LED DISPLAY SOURCE
20	P13	LAX2	O	L	LED DISPLAY AUX2
21	Vss	Vss	-	-	GND.

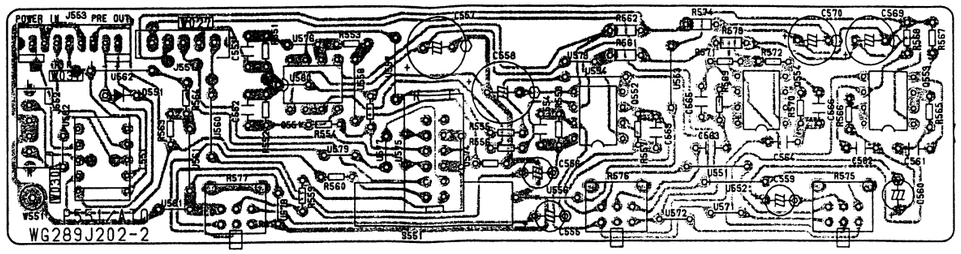
PIN NO.	PORT NAME		I/O	ACT	FUNCTION
22	P20	LAX1	O	L	LED DISPLAY AUX1
23	P21	LTUN	O	L	LED DISPLAY TUNER
24	P22	LECD	O	L	LED DISPLAY CD
25	P23	LPHO	O	L	LED DISPLAY PHONO
26	K00	1RS	I	L	ROTARY ENCORDER BIT1
27	K01	2RS	I	L	ROTARY ENCORDER BIT2
28	K02	UPK	I	L	SEQUENCE UP
29	K3	DWK	I	L	SEQUENCE DOWN
30	TEST	TEST	-	-	NOT USED (GND.)
31	XIN	XIN	-	-	CLOCK 4.00MHz
32	XOUT	XOUT	-	-	
33	$\overline{\text{RESET}}$	RES	I	L	RESET
34	$\overline{\text{HOLD}}$	PDW	I	L	POWER DOWN CHECK
35	R80	RMC	I	L	REMOTE CONTROL (RC-5)INPUT
36	R81	FMUT	O	L	KMUT + MMUT
37	R82	KMUT	O	L	FUNCTION MUTING
38	R83	MMUT	O	L	MANUAL MUTING
39	R90	LPOW	O	L	LED DISPLAY POWER
40	R91	LSTB	O	L	LED DISPLAY STANDBY
41	R92	RELY	O	H	STANDBY RELAY CONTROL
42	VDD	VDD	-	-	POWER SUPPLY +5.4V


P201/ASL
WG289J205-0
W015
BAL.CONT
PHONO
CD
LINE1
LINE2
LINE3
TAPE1
TAPE2
T2-1
T1-2
OFF
CD
LINE1
LINE2
LINE3
PHONO
TO P301/AIA J305
μ201
Q201 DTC114ES /ETC
Q202 DTC114ES /ETC
Q203 DTC114ES /ETC
Q204 DTC114ES /ETC
Q205 DTC114ES /ETC
Q206 DTC114ES /ETC
Q207 DTC114ES /ETC
Q208 DTC114ES /ETC
Q209 DTC114ES /ETC
Q210 DTC114ES /ETC
Q211 DTC114ES /ETC
Q212 DTC114ES /ETC
Q213 DTC114ES /ETC
Q214 DTC114ES /ETC
Q215 DTC114ES /ETC
Q216 DTC114ES /ETC
Q217 LC7822N
Q218 TMP47C200BN
Q219 LB1630
Q220 2SC2458 Y/GR
Q221 2SC2458 Y/GR
Q222 2SC2458 Y/GR
Q271 IR SENSOR
Q272 2SA1048 Y/GR
Q273 2SC2458 Y/GR
Q278
Q201 Q202 Q203 Q204 Q205 Q206 Q207 Q208 Q209 Q210 Q211 Q212 Q213 Q214 Q215 LT308B
X201 4.00MHZ
AMC
J207
J208
J209
J210
J203
J204
J201
J271
W201
W203
W023
C TO P901
D TO L001
A TO P801
TO P501/AVR J503
P371/ALM
WG289J208-0
M372
M371
J391
J392
/02 ONLY
P391/ARC
WG289J110-0
W291
S291
OFF
PHONO
REC SELECTOR
S291
P291/AUC
WG289J206-0
P281/AUC WG289J207-0
S281
INPUT SELECTOR
S281
P271/ARC
WG256J206-0
CD SELECTOR
S271
PH
L2
L1
CD
L3
T2
T1
GND
6V
AMC
BAL
BUS
+17V
GND
-17V
PDW
GND
6V
GND
IRS
2RS


WG289J209-0
P891/APS
B891
S10VB-20
C001
15000/71V X2
+B
W851
59.0
TO P901/APR W904
GND
-B
W852
-59.0
TO P901/APR W903
Q891
0.47+6.8
J891
W023
TO P201
PM-14F
P951/ASW
WG289J105-0
POWER
J952
W030
J014
S951
F001
10A/250V
C951
0.01
W025
J953
J951
W001
W022
J983
W031
J981
J015
J982
P981/APS
WG289J204-0
7.8
0
AC45.0
W034
0
AC45.0
W024
AC17.5
0
AC17.5
L001
J801
Q801
0.47+6.8
R801
1/2W
R802
1/2W
L801
J804
Q803
25K246
GR
Q801
2SB1417
R805
4.7
D801
S5688G
D802
S5688G
D803
S5688G
D804
S5688G
D805
S5688G
D806
S5688G
D807
S5688G
D808
S5688G
R803
100
D811
C803
2200/35V
C801
2200/35V
C807
100/25V
D809
20V
C805
100/25V
C804
2200/35V
D810
20V
C806
100/25V
C802
2200/35V
D812
Q804
2SK246
GR
R804
100
Q805
2SD1417
R806
4.7
Q802
2SB1022
D814
S5688G
D815
S5688G
D816
S5688G
D817
S5688G
D820
S5688G
D821
S5688G
C810
1000/35V
R810
22
R807
100
D819
R808
4.7
Q806
2SK246
GR
D818
1/2W
C809
1000/35V
C811
220/25V
C812
220/25V
C813
1/50V
C814
0.01
P801/APS
WG289J204-0
J801
J803
+17V
GND
-17V
P8W
GND
6V
TO P901/APR J951
A
TO P201


P951/ASW
WG289J105-0
POWER
74PM14/02G
74PM14/02B
J952
W030
J014
S951
F001
T6.3A/250V
C951
0.01
W025
J953
J951
L001
W001
W022
7.8
0
AC230
44.0
0
44.0
17.5
0
17.5
J015

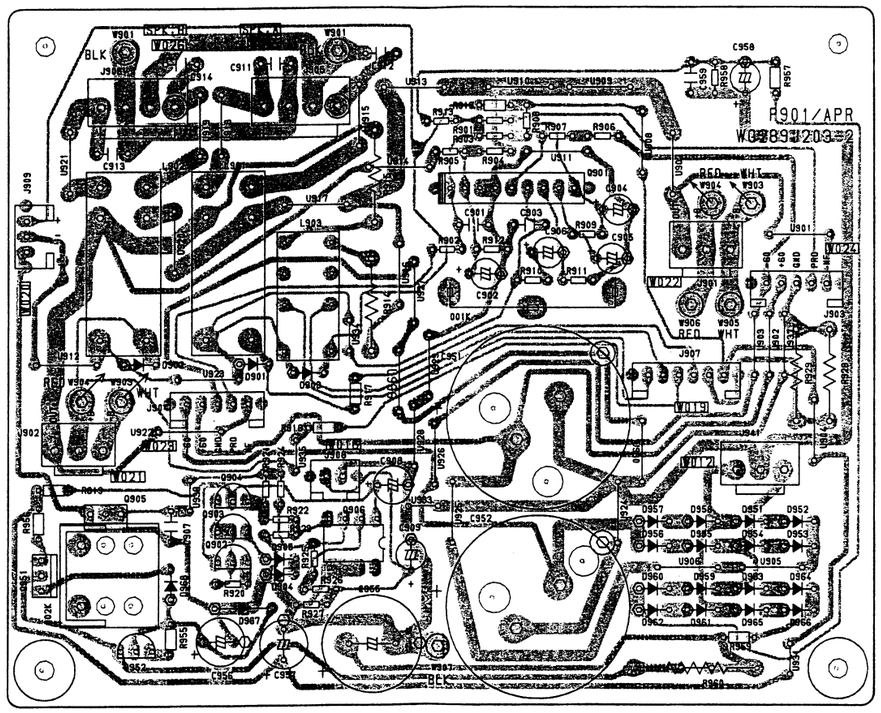
P551 Q551 Q552 Q554 Q553



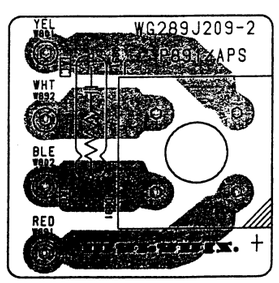
P901 Q901

Q904
Q903 Q906
Q902

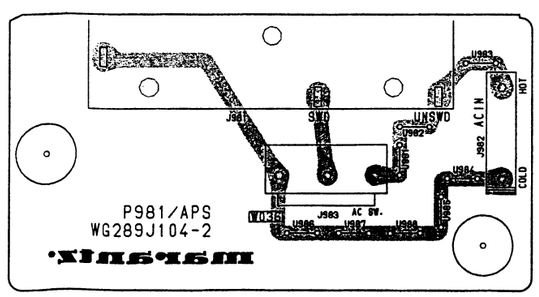
Q952



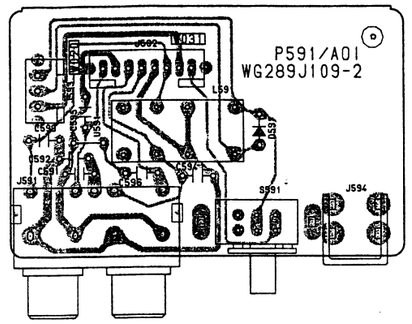
P891 [F VERSION]



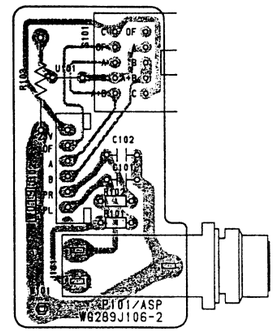
P981 [F VERSION]



P591



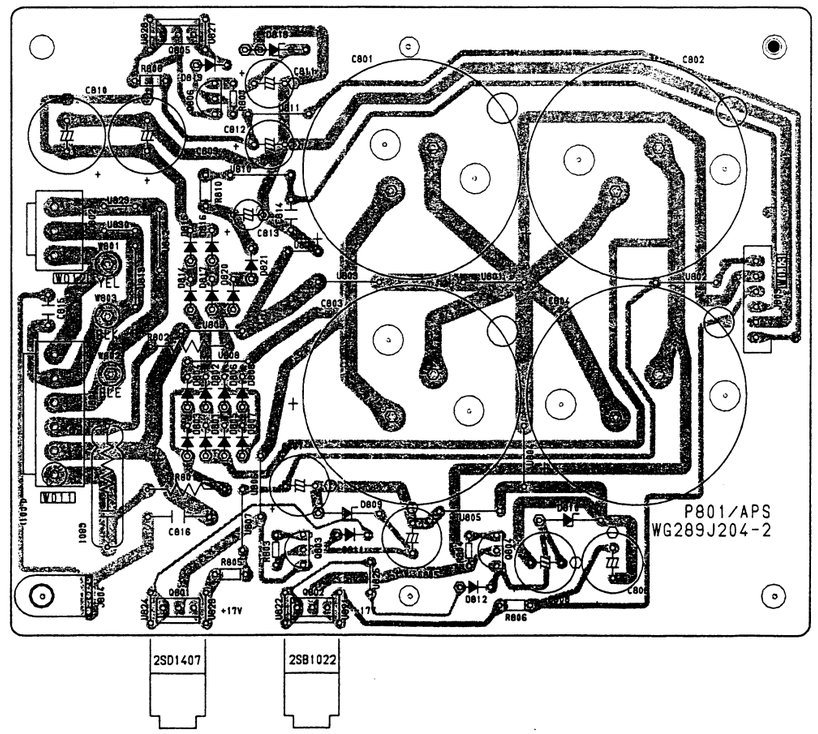
P101



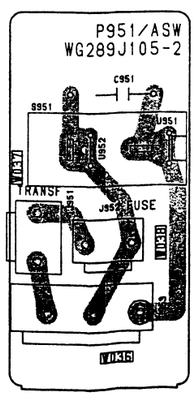
P851 Q805
Q806

Q803 Q804
Q801 Q802

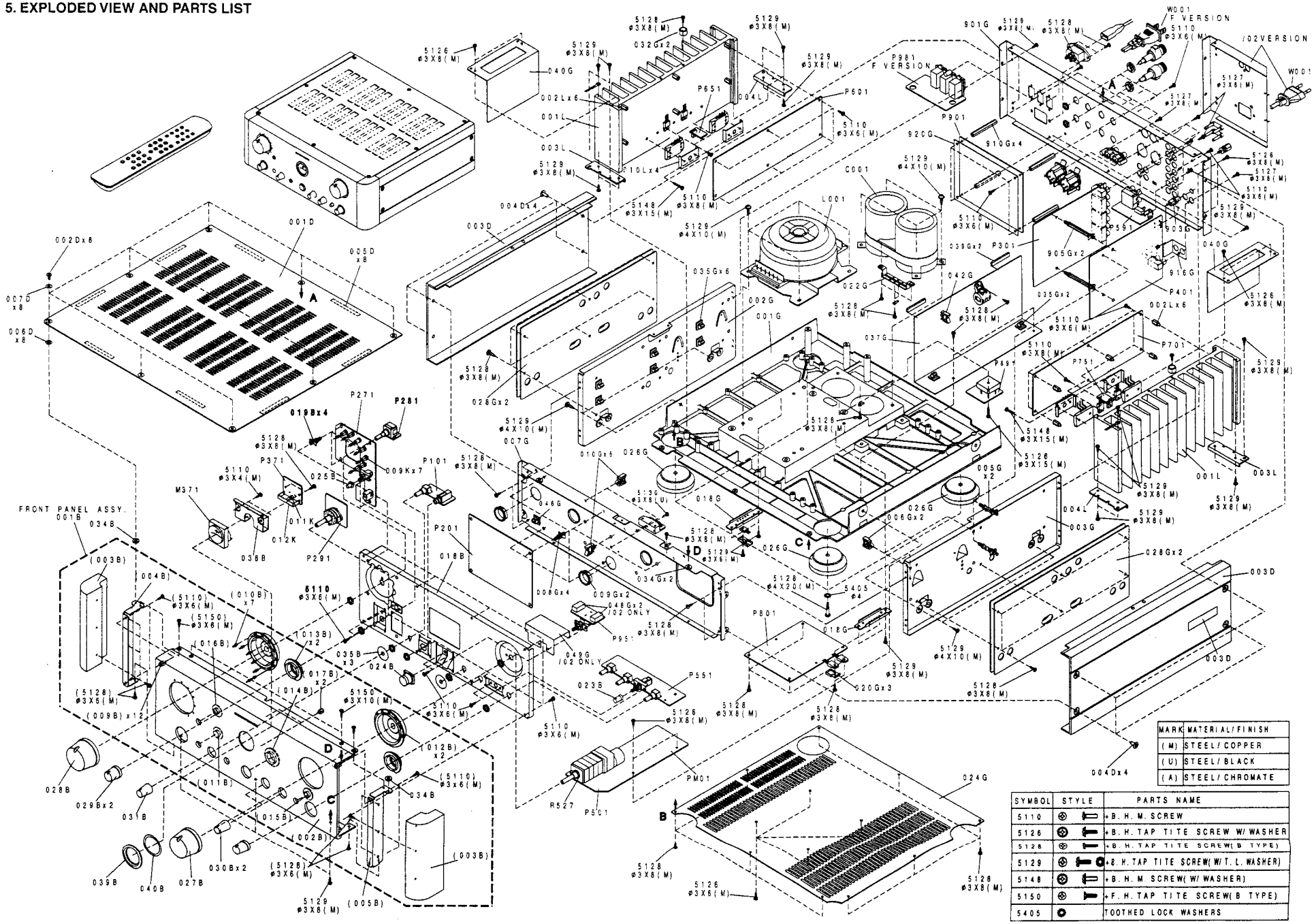
2SD1407



P951



5. EXPLODED VIEW AND PARTS LIST



MARK	MATERIAL/FINISH
(M)	STEEL/COPPER
(U)	STEEL/BLACK
(A)	STEEL/CHROMATE

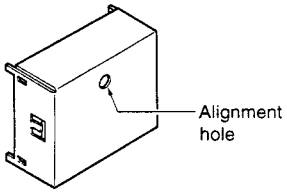
SYMBOL	STYLE	PARTS NAME
5110		+B. H. M. SCREW
5126		+B. H. TAP TITE SCREW W/ WASHER
5128		+B. H. TAP TITE SCREW(B TYPE)
5129		+B. H. TAP TITE SCREW(W/T. L. WASHER)
5148		+B. H. M SCREW(W/ WASHER)
5150		+F. H. TAP TITE SCREW(B TYPE)
5405		TOOTHED LOCK WASHERS

(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, ••:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
001B	FN		FRONT PANEL ASSY GOLD	289J248510
001B	/02B		FRONT PANEL ASSY BLACK	289J248520
001B	/02G		FRONT PANEL ASSY GOLD	289J248530
002B	FN		FRONT PANEL GOLD	289J248110
002B	/02B	4822 459 05106	FRONT PANEL BLACK	289J248020
002B	/02G	4822 459 05107	FRONT PANEL GOLD	289J248120
003B	FN,/02G	4822 426 10074	ESCUTCHEON GOLD	256J063010
003B	/02B	4822 426 10075	ESCUTCHEON BLACK	256J063110
010B		4822 381 11893	LENS,INPUT../TAPE1/TAPE2	269J355010
011B	FN,/02G	4822 381 12016	LENS,IR SENSOR GOLD	256J355030
011B	/02B	4822 381 12015	LENS,IR SENSOR BLACK	256J355040
012B	FN,/02G		BUSHING,VOL./INPUT SEL.GL	256J259210
012B	/02B		BUSHING,VOL./INPUT SEL.BL	256J259110
013B	FN,/02G		BUSHING,BAL./REC SEL. GL	256J259020
013B	/02B		BUSHING,BAL./REC SEL. BL	256J259120
014B	FN,/02G		BUSHING,FOR POWER GOLD	256J259030
014B	/02B		BUSHING,FOR POWER BLACK	256J259130
015B	FN,/02G		BUSHING,SOURCE DIRECT	256J259040
015B	/02B		BUSHING,SOURCE DIRECT	256J259140
016B	FN,/02G		BUSHING,CD SELECTOR GL	289J259110
016B	/02B		BUSHING,CD SELECTOR BL	289J259010
023B	FN,/02G	4822 410 63898	BUTTON,SOURCE DIRECT GL	144J270010
023B	/02B	4822 410 10227	BUTTON,SOURCE DIRECT BL	144J270110
024B	FN,/02G	4822 410 11276	BUTTON,POWER GOLD	176J270150
024B	/02B	4822 410 11275	BUTTON,POWER BLACK	176J270050
025B	FN,/02G	4822 410 12027	BUTTON,CD SELECTOR GL	289J270110
025B	/02B	4822 410 12026	BUTTON,CD SELECTOR BL	289J270010
027B	FN,/02G	4822 410 12029	KNOB,MASTER VOLUME GL	289J154110
027B	/02B	4822 410 12028	KNOB,MASTER VOLUME BL	289J154010
028B	FN,/02G	4822 410 12032	KNOB,INPUT SELECTOR GL	289J154120
028B	/02B	4822 410 12031	KNOB,INPUT SELECTOR BL	289J154020
029B	FN,/02G	4822 410 12034	KNOB,BAL/REC.SEL GOLD	289J154130
029B	/02B	4822 410 12033	KNOB,BAL/REC.SEL BLACK	289J154030
030B	FN,/02G	4822 410 12036	KNOB,BASS/TREBLE GOLD	289J154140
030B	/02B	4822 410 12035	KNOB,BASS/TREBLE BLACK	289J154040
031B	FN,/02G	4822 410 12038	KNOB,SPEAKER GOLD	289J154150
031B	/02B	4822 410 12037	KNOB,SPEAKER BLACK	289J154050
039B	FN,/02G	4822 532 13059	ESCUTCHEON,METER GOLD	289J063110
039B	/02B	4822 532 13058	ESCUTCHEON,METER BLACK	289J063010
040B			STICKER,ADHESIVE FOR METER ESCUTCHEON	289J122010
001D	FN,/02G	4822 442 01523	TOP LID GOLD	256J257020
001D	/02B	4822 442 01522	TOP LID BLACK	256J257120
002D	FN,/02G	4822 502 14425	SCREW FOR TOP LID GOLD	323S010020
002D	/02B	4822 502 21693	SCREW FOR TOP LID BLACK	323S010030
003D	FN,/02G	4822 426 10718	SIDE PANEL GOLD	256J249010
003D	/02B	4822 426 10717	SIDE PANEL BLACK	256J249110
004D	FN,/02G	4822 502 14613	SCREW,SIDE PANEL GOLD	258S010020
004D	/02B	4822 502 14612	SCREW,SIDE PANEL BLACK	258S010010
026G		4822 462 11116	LEG GOLD	163J05741[illegible]
903G		4822 410 12039	BUTTON,MM/MC SEL.SW	058J270060
▲ C001	F		ELECT,15000µF 71V ALB-H 63X80	EI15907110
▲ C001	/02	4822 124 12279	ELECT,15000µF 71V ALB-H 63X100	EI15907120
▲ F001	F		FUSE, 10A 250V MITI GRU	FS11000370
▲ F001	/02	4822 070 36302	FUSE,T6.3A 250V BS LISTED	FS10630850
J002		4822 290 81671	TERMINAL,2P RCA GLD T6021	YT02021240
J003			PLUG,XLM-3-31PCS	YP10003300
J004			PLUG,XLM-3-31PCS	YP10003300
J006		4822 265 11424	TERMINAL,WBT SPK.RED	YT01010360
J007		4822 265 11425	TERMINAL,WBT SPK.WHT	YT01010370
J008		4822 265 11424	TERMINAL,WBT SPK.RED	YT01010360
J009		4822 265 11425	TERMINAL,WBT SPK.WHT	YT01010370
J010		4822 265 11424	TERMINAL,WBT SPK.RED	YT01010360
J011		4822 265 11425	TERMINAL,WBT SPK.WHT	YT01010370
J012		4822 265 11424	TERMINAL,WBT SPK.RED	YT01010360
J013		4822 265 11425	TERMINAL,WBT SPK.WHT	YT01010370
▲ J014	F		JACK,FUSE HOLDER 31.8mm	YJ0800060[illegible]
▲ J014	/02	4822 267 31818	JACK,FUSE HOLDER 20mm	YJ0800061[illegible]
▲ J015		4822 265 11399	JACK,2P AC INLET SOT-16C	YJ0400236[illegible]
▲ L001	F		MAINS TRANSFORMER	TS42002040
▲ L001	/02	4822 146 11054	MAINS TRANSFORMER	TS42002050
L002		4822 526 10691	FERRITE CORE TFCK-16-8-13	FC50160030
R281		4822 052 10109	10Ω ±5% 1/4W	GG05100140
▲ W001	F	4822 321 11337	MAINS CORD,MITI DC-302-J 125V	ZC01802080
▲ W001	/02	4822 321 11439	MAINS CORD 2P 10A 250V CLASS2	ZC01803080
			PACKING	
001T	F		USER GUIDE	289J851110
001T	/02	4822 736 16441	USER GUIDE	289J851310
T100		4822 219 10324	REMOTE COMMANDER RC-17PM	ZK269J0010
			NOT STANDARD SPARE PARTS	
001S	FN		PACKING CASE GOLD	289J80[illegible]020
002S	F		CUSHION L,R	256J809010
B001	F		BATTERY,UM-4NEPH 2S	ZF24302000

6. DC OFFSET VOLTAGE ALIGNEMET

1. Before switching the mains switch. Turn down the master volume to the minimum position and set the balance volume and tone volumes at the center positions. Set variable resistors R627(on the PCB P601:L ch) and R727(on the PCB P701:R ch) fully counterclockwise.
2. Connect the digital voltage meter to the speaker terminal. And set the digital voltage meter for the DC position.
3. Turn the mains switch ON. Put thin adjustment screw driver in to the hole of the HDAM (Q601:L ch / Q701:R ch) copper cover. Adjust variable resistors in the HDAM (Q601:L ch / Q701:R ch) value at 0mV ±5mV with in 10 seconds after speaker relay turn ON.



DCオフセット電圧調整

1. 本体の電源スイッチを入れるまえに、ボリュームを最小に、バランス及びトーンコントロールをセンターに合わせます。P601基板上のR627 (L ch)及びP701基板上のR727 (R ch)の半固定抵抗を反時計回りにしぼりきります。
2. 本体背面のスピーカー端子にデジタルボルトメータを接続します。(レンジはDCに設定する。)
3. HDAM(Q601 : L ch/Q701 : R ch) のカバーにあいた穴に調整用ドライバーをさし込み、中の半固定抵抗を回せるようにします。電源スイッチをオンにし、スピーカーリレーがオンになってから10秒以内に半固定抵抗を回しデジタルボルトメータの値が0mV±5mVになるように調整します。

7. IDLING CURRENT ALIGNMENT

REMARK

Before "Idling current alignment", **" DC offset voltage alignment"** have to be done!!

1. Each of connectors J604(TP1) (on the PCB P601:Lch) and J704(TP2) (on the PCB P701:Rch) are provided with three test points. Connect the digital voltage meter, set for the DC voltage input, to the test points at the two extremities of three test points of J604(TP1) and J704(TP2).
2. After the setup above, turn the mains switch ON and heat up the amplifier about 10 minuetes.
3. Adjust variable resistors R627(on the PCB P601:L ch) and R727(on the PCB P701:R ch) according to the digital volt meter reading. The target setting value is 12mV(60mA) for both L ch and R ch.

アイドリング電流調整

【注 意】

アイドリング電流の調整は必ずDCオフセット電圧の調整を終えてから行って下さい。

1. P601基板上のコネクターJ604(TP1)及びP701基板上のコネクターJ704(TP2)の3本の調整用端子のうちの両端の2本にデジタルボルトメーターを接続します。(レンジはDCに設定する。)
2. 電源スイッチをオンにし、アイドリング電流が安定するまで、およそ10分間放置します。
3. P601基板上の半固定抵抗R627(L ch)とP701基板上の半固定抵抗R727(R ch)を時計回りにまわしデジタルボルトメーターの値が12mV±1mV(60mA)になるように調整します。

8. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R***: 1) GD05 × × × 140, Carbon film fixed resistor, ±5% 1/4W
R***: 2) GD05 × × × 160, Carbon film fixed resistor, ±5% 1/6W
① —— Resistance value

Examples ;
①Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C***: CERAMIC CAP.
3) DD1 × × × × 370, Ceramic capacitor
② ③ Disc type
Temp.coeff.P350 ~ N1000, 50V
Capacity value
Tolerance

Examples ;
② Tolerance (Capacity deviation)
±0.25 pF 0
±0.5 pF 1
±5% 5

* Tolerance of COMMON PARTS handled here are as follows :
0.5 pF ~ 5 pF .... ±0.25 pF
6 pF ~ 10 pF .... ±0.5 pF
12 pF ~ 560 pF .... ±5%

③ Capacity value

0.5 pF 005	3 pF 030	100 pF 101
1 pF 010	10 pF 100	220 pF 221
1.5 pF 015	47 pF 470	560 pF 561

C*** : CERAMIC CAP.
4) DK16 × × × 300, High dielectric constant ceramic capacitor
④ Disc type
Temp.chara. 2B4, 50V
Capacity value

Examples ;
④ Capacity value

100 pF 101	1000 pF 102	10000 pF 103
470 pF 471	2200 pF 222	

C*** : 5) ELECTROLY CAP. (⏚), 6) FILM CAP. (∓)
5) EA × × × × × × 10, Electrolytic capacitor
⑤ ⑥ One-way lead type, Tolerance ±20%
Working voltage
Capacity value

Examples ;
⑤ Capacity value

0.1 µF 104	4.7 µF 475	100 µF 107
0.33 µF 334	10 µF 106	330 µF 337
1 µF 105	22 µF 226	1100 µF 118
		2200 µF 228

⑥ Working voltage

6.3V 006	25V 025	
10V 010	35V 035	
16V 016	50V 050	

6) DF15 × × × 350 ⟶ Plastic film capacitor
DF15 × × × 310 ⟶ One-way type, Mylar ±5% 50V
DF16 × × × 310 ⟶ Plastic film capacitor
⑦ One-way type, Mylar ±10% 50V
Capacity value

Examples ;
⑦ Capacity value

0.001 µF (1000 pF) 102	0.1 µF 104
0.0018 µF 182	0.56 µF 564
0.01 µF 103	1 µF 105
0.015 µF 153	

NOTE : 1) The above CODES (R***, R***, C***, C*** and C***) are omitted on the schematic diagram in some case.
2) On the occasion, be confirmed the common parts on the parts list.
3) Refer to "Common Parts List" for the other common parts (**RI05, DD4, DK4**).

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;

1. KOA Corporation

Part No. (MJI)	Type No. (KOA)	Description
NH05 × × × 140	RF25S × × × × ΩJ	(±5% 1/4W)
NH05 × × × 120	RF50S × × × × ΩJ	(±5% 1/2W)
NH85 × × × 110	RF73B2A × × × × ΩJ	(±5% 1/10W)
NH95 × × × 140	RF73B2E × × × × ΩJ	(±5% 1/4W)

* Resistance value — Resistance value (0.1 Ω – 10 kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No. (MJI)	Type No. (MEC)	Description
NF05 × × × 140	ERD-2FCJ × × ×	(±5% 1/4W)
RF05 × × × 140		
NF02 × × × 140	ERD-2FCG × × ×	(±2% 1/4W)
RF02 × × × 140		

* Resistance value — * Resistance value

Examples ;
* Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

ABBREVIATION AND MARKS

ANT.	: ANTENNA	BATT.	: BATTERY
CAP.	: CAPACITOR	CER.	: CERAMIC
CONN.	: CONNECTING	DIG.	: DIGITAL
HP	: HEADPHONE	MIC.	: MICROPHONE
µ-PRO	: MICROPROCESSOR	REC.	: RECORDING
RES.	: RESISTOR	SPK	: SPEAKER
SW	: SWITCH	TRANSF.	: TRANSFORMER
TRIM.	: TRIMMING	TRS.	: TRANSISTOR
VAR.	: VARIABLE	X'TAL	: CRYSTAL

NOTE ON SAFETY :

Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ⚠ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意 :

⚠ がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, ⁕:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			P101-SPK.SW. & HEAD PHONES CIRCUIT BOARD	
			P101-CAPACITORS	
C101	/02	4822 121 42754	FILM,0.01μF ±5% 50V	OF15103010
C102	/02	4822 121 42754	FILM,0.01μF ±5% 50V	OF15103010
			P101-RESISTORS	
R101		4822 052 10479	47Ω ±5% 1/6W	GG05470160
R102		4822 052 10479	47Ω ±5% 1/6W	GG05470160
R103		5322 116 55263	820Ω ±5% 1W	GA05821010
			P101-MISCELLANEOUS	
J101	FN.:02G	4822 267 31692	H.P. JACK HLJ0540-01-430	YJ01003880
J101	/02B	4822 267 31692	H.P. JACK HLJ0540-01-410	YJ01003870
S101		4822 273 10337	ROTARY SW.,SRBU14N-F2020	SR02040260
			P201-μ-COM CIRCUIT BOARD	
			P201-CAPACITORS	
C201				
⟆		4822 121 42754	FILM,0.01μF ±5% 50V	OF15103010
C217				
C218		4822 124 41534	ELECT.,10μF M 50V RA-2	OA10602520
C219		4822 122 40617	CER.,0.1μF +80 -20% 50V	DD38104010
C220		4822 124 41534	ELECT.,10μF M 25V RA-2	OA10602520
C221		4822 121 42754	FILM,0.01μF ±5% 50V	OF15103010
C222		4822 124 41534	ELECT.,10μF M 25V RA-2	OA10602520
C223		4822 122 40617	CER.,0.1μF +80 -20% 50V	DD38104010
C224		4822 124 90406	BIG ELECT,FMOH223ZTP16 SUPER CAP.	EX22300530
C225		4822 122 40617	CER.,0.1μF +80 -20% 50V	DD38104010
C226		4822 124 41534	ELECT.,10μF M 25V RA-2	OA10602520
C227		4822 124 41534	ELECT.,10μF M 25V RA-2	OA10602520
C228		4822 122 40617	CER.,0.1μF +80 -20% 50V	DD38104010
C229		4822 121 42754	FILM,0.01μF ±5% 50V	OF15103010
C230		4822 124 41534	ELECT.,10μF M 25V RA-2	OA10602520
C231				
⟆		4822 121 42754	FILM,0.01μF ±5% 50V	OF15103010
C239				
			P201-RESISTORS	
R241		4822 052 10228	2.2Ω ±5% 1/6W	GG05022160
R249		4822 052 10479	47Ω ±5% 1/6W	GG05470160
R259		4822 052 10228	2.2Ω ±5% 1/6W	GG05022160
R⁕⁕⁕			**P201-RESISTORS (COMMON)** CARBON FILM FIXED RES. ±5% 1/6W : R201-R240 R242-R248 R250-R257	
			P201-SEMICONDUCTORS	
D201				
⟆		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
D205				
Q201		4822 130 60588	DIG.TRS.,DTC114ES UN4211	BA20001000
Q202				
⟆		4822 130 60588	DIG.TRS.,DTC114ES UN4211 10k 10k	BA20001000
Q216				
Q217		4822 209 32553	IC,LC78212	HC10309030
Q218		4822 209 16894	MICROPROCESSOR, 42PIN TMP47C200BN-H384 4BIT 2K	HU289JT000
Q219		4822 209 73287	IC,LB1630	HC10235030
Q220		4822 130 60839	TRS.,2SC2458 Y OR GR	HT324582B0
Q221		4822 130 60839	TRS.,2SC2458 Y OR GR	HT324582B0
Q222		4822 130 60839	TRS.,2SC2458 Y OR GR	HT324582B0
			P201-MISCELLANEOUS	
L201				
⟆		4822 158 60605	FERRIT BEADS B-01-RT	FC90050060
L216				

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
X201		4822 242 72527	SERAMIC VIB.,CST4.00MGW CERALOCK	FQ04004030
			P271-IR SENSOR & IND. CIRCUIT BOARD	
			P271-CAPACITORS	
C271		4822 124 23563	ELECT,47μF 10V	EG47601050
C272		4822 126 12496	CER.,0.01μF +80% -20% 50V	DD38103010
C273		4822 124 23563	ELECT,47μF 10V	EG47601050
			P271-RESISTOR	
R271		4822 052 10101	100Ω ±5% 1/6W	GG05101160
			P271-RESISTORS (COMMON)	
R⁕⁕⁕			CARBON FILM FIXED RES. ±5% 1/6W : R272-R280	
			P271-SEMICONDUCTORS	
D271				
⟆		4822 130 80326	L.E.D.,LT3D8B RED 3O	HI10062320
D277				
D278		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
Q271		4822 209 16735	PHOTO UNIT,PNA4655M00HB IR SENSOR	HW10006020
Q272		4822 130 60107	TRS.,2SA1048 Y OR GR	HT110482B0
Q273		4822 130 60839	TRS.,2SC2458 Y OR GR	HT324582B0
			P271-MISCELLANEOU	
S271		4822 276 14018	PUSH SW.,SPEA12	SP02012270
			P281-INPUT SELECTOR CIRCUIT BOARD	
S281		4822 273 10363	ROTARY SW. SRRSIC-F12-1 L30	SR01120090
			P291-REC SERECTOR CIRCUIT BOARD	
R291			1kΩ ±5% 1/6W	GD05102160
S291		4822 273 10303	ROTARY SW.,SRRM 1-8 L25	SR01080080
			P301-INPUT RCA PINJACK CIRCUIT BOARD	
			P301-MISCELLANEOUS	
C301				
⟆		4822 124 41543	ELECT.,1μF M 50V RA-2	OA10505020
C315				
C318				
⟆		4822 122 30043	CER.,0.01μF +80%-20% 50V	DK18103310
C331				
C333				
⟆	/02	4822 121 10792	FILM,220pF ±5% 100V	OF15221540
C348				
			P301-RESISTORS	
R321				
⟆		4822 052 10109	10Ω ±5% 1/6W	GG05100160
R335				
			P301-RESISTORS (COMMON)	
R⁕⁕⁕			CARBON FILM FIXED RES. ±5% 1/6W : R301-R320	
			P301-SEMICONDUCTORS	
Q301				
⟆		4822 130 61227	DIG.TRS.,DTA114ES UN4111 10k 10k	BA10001000
Q315				

(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, ⁕:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			P301-MISCELLANEOUS	
J301		4822 290 81598	TERMINAL,2P RCA YKC21-3255 GOLD	YT02021130
J302				
⟆		4822 290 81599	TERMINAL,4P RCA	YT02040970
J304			YKC21-3269 GOLD	
L301				
⟆		4822 280 20501	RELAY,MR62-24SR 24V	LY2024041O
L315				
			P371-METER CIRCUIT BOARD	
C371		4822 126 12496	CER.,0.01μF +80% -20% 50V	DD38103010
M371		4822 344 14034	D.C METER,MG-28	IM11030030
M372		4822 134 40925	LAMP,8V 100mA BLUE	IN10080680
			P391-RC-5 CIRCUIT BOARD [/02 VERSION]	
R391	/02	4822 052 10479	47Ω ±5% 1/6W	GG05470160
J391	/02	4822 267 41009	TERMINAL,2P RCA	YT02020890
			P401-PHONO AMP. CIRCUIT BOARD	
			P402-CAPACITORS	
C401		4822 121 10794	FILM,1000pF ±5% 100V	OF55102530
C402		4822 121 10794	FILM,1000pF ±5% 100V	OF55102530
C403		4822 121 10793	FILM,100pF ±5% 100V	OF55101530
C404		4822 121 10793	FILM,100pF ±5% 100V	OF55101530
C405	/02	4822 121 10793	FILM,100pF ±5% 100V	OF55101530
C406	/02	4822 121 10793	FILM,100pF ±5% 100V	OF55101530
C407		4822 124 22238	ELECT.,100μF 25V ARA	OA10702550
C408		4822 124 22238	ELECT.,100μF 25V ARA	OA10702550
C409		4822 121 70324	FILM,0.039μF ±5% CQ2P2A	OF55393530
C410		4822 121 70324	FILM,0.039μF ±5% CQ2P2A	OF55393530
C411		4822 121 70321	FILM,10μF ±5% 100V	OF55103530
C412		4822 121 70321	FILM,0.01μF ±5% 100V	OF55103530
C413		4822 121 10794	FILM,1000pF ±5% 100V	OF55102530
C414		4822 121 10794	FILM,1000pF ±5% 100V	OF55102530
C415		4822 121 70323	FILM,3300pF ±5% 100V	OF55332530
C416		4822 121 70323	FILM,3300pF ±5% 100V	OF55332530
C417		4822 124 80578	ELECT.,22μF 25V ARA	OA22602550
C418		4822 124 80578	ELECT.,22μF 25V ARA	OA22602550
C419		4822 121 70323	FILM,3300pF ±5% 100V	OF55332530
C420		4822 121 70323	FILM,3300pF ±5% 100V	OF55332530
C421				
⟆		4822 124 90051	ELECT.,220μF 25V ARA	OA22702550
C424				
C425				
⟆		4822 121 10794	ELECT.,1000μF M 16V ARA	OA10801650
C428				
C429	/02	4822 121 10794	FILM,100pF ±5% 100V	OF55101530
C430	/02	4822 121 10794	FILM,100pF ±5% 100V	OF55101530
C431		4822 126 12496	CER.,0.01μF +80% -20% 50V	DD38103010
C432		4822 126 12496	CER.,0.01μF +80% -20% 50V	DD38103010
C433		4822 124 12276	FILM,0.01μF ±5% 100V APSV	OF15103540
C434		4822 126 12496	CER.,0.01μF +80% -20% 50V	DD38103010
C451		4822 121 10794	FILM,1000pF ±5% 100V	OF55102530
C452		4822 121 10794	FILM,1000pF ±5% 100V	OF55102530
C453				
⟆		4822 124 90051	ELECT.,220μF 25V ARA	OA22702550
C456				
C457		4822 123 30089	MICA,22pF ±5% 500V FE	DF35220520
C458		4822 123 30089	MICA,22pF ±5% 500V FE	DF35220520
C459		4822 124 80578	ELECT.,22μF 25V ARA	OA22602550
C460		4822 124 80578	ELECT.,22μF 25V ARA	OA22602550
C461		4822 121 10794	FILM,1000pF ±5% 100V	OF55102530
C462		4822 121 10794	FILM,1000pF ±5% 100V	OF55102530
C463		4822 126 12496	CER.,0.01μF +80% -20% 50V	DD38103010
C464		4822 126 12496	CER.,0.01μF +80% -20% 50V	DD38103010

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
C465		4822 126 12496	CER.,0.01μF +80% -20% 50V	DD38103010
C466		4822 126 12496	CER.,0.01μF +80% -20% 50V	DD38103010
C467		4822 124 41543	ELECT.,1μF M 50V RA-2	OA10505020
			P401-RESISTORS	
R401		4822 111 20407	100.0Ω 1% 1/4W ERDPS2F	NR01101140
R402		4822 111 20407	100.0Ω 1% 1/4W	NR01101140
R403			33Ω ±1% 1/4W ERD	NR01330140
R404			33Ω ±1% 1/4W ERD	NR01330140
R405		4822 111 20428	47kΩ 1% 1/4W ERD	NR01473140
R406		4822 111 20428	47kΩ 1% 1/4W ERD	NR01473140
R407			120Ω ±1% 1/4W ERD	NR01121140
R408			120Ω ±1% 1/4W ERD	NR01121140
R409		4822 111 20409	12Ω ±1% 1/4W ERD	NR01120140
R410		4822 111 20409	12Ω ±1% 1/4W ERD	NR01120140
R415		4822 111 20418	82kΩ ±1% 1/4W ERD	NR01823140
R416		4822 111 20418	82kΩ ±1% 1/4W ERD	NR01823140
R417		4822 111 20417	6.8kΩ ±1% 1/4W ERD	NR01682140
R418		4822 111 20417	6.8kΩ ±1% 1/4W ERD	NR01682140
R421		4822 111 20415	27kΩ ±1% 1/4W ERD	NR01273140
R422		4822 111 20415	27kΩ ±1% 1/4W ERD	NR01273140
R423		4822 111 20416	330Ω ±1% 1/4W ERD	NR01331140
R424		4822 111 20416	330Ω ±1% 1/4W ERD	NR01331140
▲ R425		4822 052 10479	47Ω ±5% 1/6W	GG05470160
▲ R426		4822 052 10479	47Ω ±5% 1/6W	GG05470160
▲ R427		4822 052 10151	150Ω ±5% 1/6W	GG05151160
▲ R428		4822 052 10151	150Ω ±5% 1/6W	GG05151160
R451				
⟆		4822 111 20419	10kΩ ±1% 1/4W ERD	NR01103140
R454				
R455				
⟆		4822 111 20416	330Ω ±1% 1/4W ERD	NR01331140
R458				
R459				
⟆		4822 111 20414	2.2kΩ ±1% 1/4W ERD	NR01222140
R466				
R467		4822 111 20415	27kΩ ±1% 1/4W ERD	NR01273140
R468		4822 111 20415	27kΩ ±1% 1/4W ERD	NR01273140
R469		4822 111 20413	220Ω ±1% 1/4W ERD	NR01221140
R470		4822 111 20413	220Ω ±1% 1/4W ERD	NR01221140
▲ R471		4822 052 10479	47Ω ±5% 1/6W	GG05470160
▲ R472		4822 052 10479	47Ω ±5% 1/6W	GG05470160
R473		4822 052 10109	10Ω ±5% 1/6W	GG05100160
R⁕⁕⁕			**P401-RESISTORS (COMMON)** CARBON FILM FIXED RES. ±5% 1/6W : R411-R414 R419 R420	
			P401-SEMICONDUCTORS	
D401				
⟆		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
D404				
Q401			UNIT & H-IC,NEW HDAM	KH269J1010
Q402			UNIT & H-IC,NEW HDAM	KH269J1010
Q403		4822 209 31153	IC,NJM2114D	HC10111090
Q451		4822 209 16926	IC,OPA2604AP	HC10008610
Q452		4822 209 16926	IC,OPA2604AP	HC10008610
Q453		4822 209 16926	IC,OPA2604AP	HC10008610
Q454		4822 130 61227	DIG.TRS.,DTA114ES UN4111 10k 10k	BA10001000
			P401-MISCELLANEOUS	
J401		4822 290 81598	TERMINAL,2P RCA YKC21-3255 GOLD	YT02021130
L401	/02	4822 158 60606	CHOKE COIL, 20μH 5R200PN	LC12030050
L402	/02	4822 158 60606	CHOKE COIL, 20μH 5R200PN	LC12030050
L451		4822 280 20501	RELAY,MR62-24SR 24V	LY2024041O
S401		4822 276 13409	PUSH SW.,SPUP*9-4N-W2.0	SP04010660

(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, ••:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO (MJI)
			P501-VOL.AMP.	
			CIRCUIT BOARD	
			P501-CAPACITORS	
C501		4822 121 10796	FILM,220pF ±5% 100V	OF55221530
C502		4822 121 10796	FILM,220pF ±5% 100V	OF55221530
C503		4822 121 70322	FILM,0.1µF ±5% 100V	OF55104530
C504		4822 121 70322	FILM,0.1µF ±5% 100V	OF55104530
C505		4822 123 30089	MICA,22pF ±5% 500V FE	DF35220520
⟆		4822 123 30089	MICA,22pF ±5% 500V FE	DF35220520
C508				
C509		4822 124 80578	ELECT.,22µF 25V ARA	OA22602550
C510		4822 124 80578	ELECT.,22µF 25V ARA	OA22602550
C511				
⟆		4822 124 90051	ELECT.,220µF M 25V ARA	OA22702550
C514				
C515		4822 121 70322	FILM,0.1µF ±5% 100V	OF55104530
C516		4822 121 70322	FILM,0.1µF ±5% 100V	OF55104530
C517		4822 124 23112	ELECT,10µF 16V	EQ10601630
C518		4822 124 12276	FILM,0.01µF ±5% 100V APSV	OF15103540
C519		4822 124 12276	FILM,0.01µF ±5% 100V APSV	OF15103540
C520		4822 126 12496	CER.,0.01µF +80% -20% 50V	DD38103010
C521		4822 126 12496	CER.,0.01µF +80% -20% 50V	DD38103010
			P501-RESISTORS	
R501		4822 111 20423	220kΩ ±1% 1/4W ERD	NR01224140
R502		4822 111 20423	220kΩ ±1% 1/4W ERD	NR01224140
R503		4822 111 20408	1kΩ ±1% 1/4W ERD	NR01102140
R504		4822 111 20408	1kΩ ±1% 1/4W ERD	NR01102140
R505		4822 111 20407	100.0Ω 1% 1/4W ERDPS2F	NR01101140
R506		4822 111 20407	100.0Ω 1% 1/4W ERDPS2F	NR01101140
R507				
⟆		4822 050 23308	3.3MΩ ±5% 1/6W	GD05335160
R512				
R513				
⟆			15kΩ ±1% 1/4W ERD	NR01153140
R516				
R517				
⟆			22Ω ±1% 1/4W ERD	NR01220140
R520				
R521		4822 111 20415	27kΩ ±1% 1/4W ERD	NR01273140
R522		4822 111 20415	27kΩ ±1% 1/4W ERD	NR01273140
R523		4822 111 20408	1kΩ ±1% 1/4W ERD	NR01102140
R524		4822 111 20408	1kΩ ±1% 1/4W ERD	NR01102140
R525		4822 111 20413	220Ω ±1% 1/4W ERD	NR01221140
R526		4822 111 20413	220Ω ±1% 1/4W ERD	NR01221140
R527		4822 111 20407	100Ω ±1% 1/4W ERD	NR01101140
R528		4822 111 20407	100Ω ±1% 1/4W ERD	NR01101140
R529				
⟆		4822 052 10479	47Ω ±5% 1/6W	GG05470160
R532				
R533		4822 101 11362	VAR.,10kΩ X2 2kΩ X2 RK27114MC	RY01030040
			P501-SEMICONDUCTORS	
D501		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
D502		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
Q501			UNIT & H-IC,NEW HDAM	KH269J1010
Q502			UNIT & H-IC,NEW HDAM	KH269J1010
Q503		4822 130 42949	TRS.,2SA970 GR OR BL	HT109702A0
Q504		4822 130 42949	TRS.,2SA970 GR OR BL	HT109702A0
Q505		4822 130 43233	TRS.,2SC2240 GR OR BL	HT322402A0
Q506		4822 130 43233	TRS.,2SC2240 GR OR BL	HT322402A0
Q507		4822 130 43283	TRS.,2SC2705 O OR Y	HT327052A0
Q508		4822 130 43283	TRS.,2SC2705 O OR Y	HT327052A0
Q509		4822 130 42999	TRS.,2SA1145 O OR Y	HT111452A0
Q510		4822 130 42999	TRS.,2SA1145 O OR Y	HT111452A0

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			P501-MISCELLANEOUS	
L501				
⟆		4822 158 60605	FERRIT BEADS B-01-RT	FC90050060
L504				
			P551-TONE AMP.	
			CIRCUIT BOARD	
			P551-CAPACITORS	
C551		4822 126 14166	FILM,330pF ±1% 100V PP	OF15331540
C552		4822 126 14166	FILM,330pF ±1% 100V PP	OF15331540
C553		4822 121 70543	FILM,100pF ±5% 100V	OF15101540
C554		4822 121 70543	FILM,100pF ±5% 100V	OF15101540
C555		4822 124 90386	ELECT.,10µF 25V ARA	OA10602550
C556		4822 124 90386	ELECT.,10µF 25V ARA	OA10602550
C557		4822 124 90051	ELECT.,220µF 25V ARA	OA22702550
C558		4822 124 90051	ELECT.,220µF 25V ARA	OA22702550
C559		4822 124 22274	ELECT.,4.7µF M 50V RA-2	OA47505020
C560		4822 124 22274	ELECT.,4.7µF M 50V RA-2	OA47505020
C561		4822 121 42764	FILM,0.047µF ±5% 50V	OF15473010
C562		4822 121 42764	FILM,0.047µF ±5% 50V	OF15473010
C563		4822 121 42754	FILM,0.01µF ±5% 50V	OF15103010
C564		4822 121 42754	FILM,0.01µF ±5% 50V	OF15103010
C565		4822 121 70543	FILM,100pF ±5% 100V	OF15101540
C566		4822 121 70543	FILM,100pF ±5% 100V	OF15101540
C569		4822 124 90058	ELECT.,47µF 25V ARA	OA47602550
C570		4822 124 90058	ELECT.,47µF 25V ARA	OA47602550
			P551-RESISTORS	
R561				
⟆		4822 052 10479	47Ω ±5% 1/6W	GG05470160
R574				
R575		4822 101 30735	VAR.,10kΩ X2 B	RM01030720
R576		4822 101 30735	VAR.,10kΩ X2 B	RM01030720
R577		4822 100 30138	VAR.,100kΩ MN BALANCE	RM01041310
			P551-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : R551-R560 R563-R572	
			P551-SEMICONDUCTORS	
D551		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
Q551		4822 209 16926	IC,OPA2604AP	HC10008610
Q552		4822 209 16926	IC,OPA2604AP	HC10008610
Q553		4822 209 73064	IC,NJM-2068-DD	HC10053090
Q554		4822 209 73064	IC,NJM-2068-DD	HC10053090
			P551-MISCELLANEOUS	
L551		4822 281 50153	RELAY,DC24V A24W-OH-K	LY20240370
S551		4822 276 13065	PUSH SW.,SPUP24V1A STROK=2mm NON-SHORT	SP04010650
			P591-PREOUT & MAIN IN	
			CIRCUIT BOARD	
			P591-CAPACITORS	
C591		4822 126 12496	CER.,0.01µF +80% -20% 50V	DD38103010
C592		4822 126 12496	CER.,0.01µF +80% -20% 50V	DD38103010
C593				
⟆	/02	4822 121 70543	FILM,100pF ±5% 100V	OF15101540
C596				
			P591-SEMICONDUCTOR	
D591		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
			P591-MISCELLANEOUS	
L591		4822 280 20501	RELAY,MR62-24SR 24V	LY20240410
S591		4822 277 21559	SLIDE SW.,SSSU12	SS02021150

(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, ••:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			P601-POWER AMP. L	
			CIRCUIT BOARD	
			P601-CAPACITORS	
C601		4822 121 10797	FILM,680pF ±5% 100V	OF55681530
C602		4822 121 70322	FILM,0.1µF ±5% 100V	OF55104530
C603		4822 124 22242	ELECT.,470µF M 25V ARA	OA47702550
C604		4822 124 22242	ELECT.,470µF M 25V ARA	OA47702550
C605		4822 123 30088	MICA,10pF D 250WV	DF31100520
C606		4822 121 10797	FILM,680pF ±5% 100V	OF55681530
C607		4822 124 23562	ELECT.,10µF M 100V	OA10610020
C608		4822 121 10796	FILM,220pF ±5% 100V	OF55221530
C609		4822 121 70324	FILM,0.039µF ±5% 100V	OF55393530
C611		4822 124 80542	ELECT,10µF M 63V RBPA	EQ10606390
▲ C613		4822 124 12278	ELECT,470µF M 80V AUDIO	EB47708060
▲ C614		4822 124 12278	ELECT,470µF M 80V AUDIO	EB47708060
C615		4822 124 22273	ELECT.,0.47µF M 50V RA-2	OA47405020
			P601-RESISTORS	
R601		4822 111 20421	100kΩ ±1% 1/4W ERD	NR01104140
R602		4822 111 20408	1kΩ ±1% 1/4W	NR01102140
R603		4822 111 20428	47kΩ 1% 1/4W ERD	NR01473140
R604		4822 111 20428	47kΩ 1% 1/4W ERD	NR01473140
R605		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
R606		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
R607		4822 111 20407	100Ω ±1% 1/4W ERD	NR01101140
R608		4822 111 20407	100Ω ±1% 1/4W ERD	NR01101140
R609		4822 111 31001	330Ω ±5% 1/6W	GG05331160
R610		4822 111 31001	330Ω ±5% 1/6W	GG05331160
R611				
⟆		5322 116 54398	METAL,680Ω ±5% 2W	NK05681020
R616				
R617		4822 050 23308	3.3MΩ ±5% 1/6W	GD05335160
R618		4822 050 23308	3.3MΩ ±5% 1/6W	GD05335160
R619		4822 050 23308	3.3MΩ ±5% 1/6W	GD05335160
R620			82Ω ±1% 1/4W	NR01820140
R621				
⟆		4822 111 20416	330Ω ±1% 1/4W ERD	NR01331140
R624				
R625			3.3kΩ ±1% 1/4W ERD	NR01332140
R626		4822 111 20408	1kΩ ±1% 1/4W ERD	NR01102140
R627		4822 101 30707	TRIM.,VAR. 2.2kΩ VERT	RA02220760
R629		4822 052 10101	100Ω ±5% 1/6W	GG05101160
R630		4822 052 10101	100Ω ±5% 1/6W	GG05101160
▲ R631		4822 050 24708	4.7Ω ±5% 1/4W	GG05047140
▲ R632		4822 050 24708	4.7Ω ±5% 1/4W	GG05047140
R633		4822 052 10471	470Ω ±5% 1/6W	GG05471160
R634		4822 052 10471	470Ω ±5% 1/6W	GG05471160
R635				
⟆		4822 050 26809	68Ω ±5% 1/6W	GG05680160
R638				
▲ R639		4822 052 10109	10Ω ±5% 1/6W	GG05100160
▲ R640		4822 052 10109	10Ω ±5% 1/6W	GG05100160
▲ R641			0.1Ω ±10% 5W ERF5EK R5	GW10102050
▲ R642			0.1Ω ±10% 5W ERF5EK R5	GW10102050
R643			1.5kΩ ±5% 1/6W	GG05152160
▲ R644		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
R649		4822 053 11109	10Ω ±5% 2W	GA05100020
R650		4822 052 10109	10Ω ±5% 1/6W	GG05100160
R651	/02B	4822 116 83929	220Ω ±5% 1/4W	GG05221140
R651	/02G	4822 116 83929	220Ω ±5% 1/4W	GG05221140
			P601-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : R645-R648	
			P601-SEMICONDUCTORS	
D601		4822 130 83385	ZENER DIODE,HZ20-1L	HD30020010
D602		4822 130 83385	ZENER DIODE,HZ20-1L	HD30020010
D603		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
D605				
⟆		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
D612				
D613		4822 130 80318	ZENER DIODE,6.8V 04AZ5.6-Y RD5.6ES B2 MTZJ5.6B	HD30681000
D614		4822 130 80318	ZENER DIODE,6.8V 04AZ5.6-Y RD5.6ES B2 MTZJ5.6B	HD30681000
D615		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
D616		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
D617		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
Q601			UNIT & H-IC,NEW HDAM	KH269J1010
Q603		4822 130 42949	TRS.,2SA970 GR OR BL	HT109702A0
Q604		4822 130 43233	TRS.,2SC2240 GR OR BL	HT322402A0
Q605		4822 130 42949	TRS.,2SA970 GR OR BL	HT109702A0
Q606		4822 130 43233	TRS.,2SC2240 GR OR BL	HT322402A0
Q607		4822 130 43283	TRS.,2SC2705 O OR Y	HT327052A0
Q608		4822 130 42999	TRS.,2SA1145 O OR Y	HT111452A0
Q609		4822 130 42999	TRS.,2SA1145 O OR Y	HT111452A0
Q610		4822 130 43283	TRS.,2SC2705 O OR Y	HT327052A0
Q611		4822 130 43283	TRS.,2SC2705 O OR Y	HT327052A0
Q612		4822 130 42999	TRS.,2SA1145 O OR Y	HT111452A0
▲ Q613		4822 130 63635	TRS.,2SC4793 O OR Y	HT347932A0
▲ Q614		4822 130 63634	TRS.,2SA1837 O OR Y	HT118372A0
▲ Q615		4822 130 43303	TRS.,2SC2922 Y OR P	HT329222B0
▲ Q616		4822 130 43015	TRS.,2SA1216 Y OR P	HT112162B0
Q617		4822 130 43233	TRS.,2SC2240 GR OR BL	HT322402A0
Q618		4822 130 42949	TRS.,2SA970 GR OR BL	HT109702A0
			P601-MISCELLANEOUS	
L601	/02B	4822 157 63085	AIR COIL,SPK	ML08010010
L601	/02G	4822 157 63085	AIR COIL,SPK	ML08010010
			P651-IDLING SENSOR L	
			CIRCUIT BOARD	
Q602		4822 130 60526	TRS.,2SD1508 DARLINGTON HFE>4000	HT415080A0
			P701-POWER AMP. R	
			CIRCUIT BOARD	
			P701-CAPACITORS	
C701		4822 121 10797	FILM,680pF ±5% 100V	OF55681530
C702		4822 121 70322	FILM,0.1µF ±5% 100V	OF55104530
C703		4822 124 22242	ELECT.,470µF M 25V ARA	OA47702550
C704		4822 124 22242	ELECT.,470µF M 25V ARA	OA47702550
C705		4822 123 30088	MICA,10pF D 250WV	DF31100520
C706		4822 121 10797	FILM,680pF ±5% 100V	OF55681530
C707		4822 124 23562	ELECT.,10µF M 100V	OA10610020
C708		4822 121 10796	FILM,220pF ±5% 100V	OF55221530
C709		4822 121 70324	FILM,0.039µF ±5% 100V	OF55393530
C711		4822 124 80542	ELECT,10µF M 63V RBPA	EQ10606390
C712		4822 124 80542	ELECT,10µF M 63V RBPA	EQ10606390
▲ C713		4822 124 12278	ELECT,470µF M 80V AUDIO	EB47708060
▲ C714		4822 124 12278	ELECT,470µF M 80V AUDIO	EB47708060
C715		4822 124 22273	ELECT.,0.47µF M 50V RA-2	OA47405020
			P701-RESISTORS	
R701		4822 111 20421	100kΩ ±1% 1/4W ERD	NR01104140
R702		4822 111 20408	1kΩ ±1% 1/4W	NR01102140
R703		4822 111 20428	47kΩ 1% 1/4W ERD	NR01473140
R704		4822 111 20428	47kΩ 1% 1/4W ERD	NR01473140
R705		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
R706		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
R707		4822 111 20407	100Ω ±1% 1/4W ERD	NR01101140
R708		4822 111 20407	100Ω ±1% 1/4W ERD	NR01101140
R709		4822 111 31001	330Ω ±5% 1/6W	GG05331160
R710		4822 111 31001	330Ω ±5% 1/6W	GG05331160
R711				
⟆		5322 116 54398	METAL,680Ω ±5% 2W	NK05681020
R716				

(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, ••:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
R717		4822 050 23308	3.3MΩ ±5% 1/6W	GD05335160
R718		4822 050 23308	3.3MΩ ±5% 1/6W	GD05335160
R719		4822 050 23308	3.3MΩ ±5% 1/6W	GD05335160
R720			82Ω ±1% 1/4W	NR01820140
R721				
⟆		4822 111 20416	330Ω ±1% 1/4W ERD	NR01331140
R724				
R725			3.3kΩ ±1% 1/4W ERD	NR01332140
R726		4822 111 20408	1kΩ ±1% 1/4W ERD	NR01102140
R727		4822 101 30707	TRIM.,VAR. 2.2kOHM	RA02220760
R729		4822 052 10101	100Ω ±5% 1/6W	GG05101160
R730		4822 052 10101	100Ω ±5% 1/6W	GG05101160
R731		4822 050 24708	4.7Ω ±5% 1/4W	GG05047140
R732		4822 050 24708	4.7Ω ±5% 1/4W	GG05047140
R733		4822 052 10471	470Ω ±5% 1/6W	GG05471160
R734		4822 052 10471	470Ω ±5% 1/6W	GG05471160
R735				
⟆		4822 050 26809	68Ω ±5% 1/6W	GG05680160
R738				
▲ R739		4822 052 10109	10Ω ±5% 1/6W	GG05100160
▲ R740		4822 052 10109	10Ω ±5% 1/6W	GG05100160
▲ R741			0.1Ω ±10% 5W ERF5EK R5	GW10102050
▲ R742			0.1Ω ±10% 5W ERF5EK R5	GW10102050
R743			1.5kΩ ±5% 1/6W	GG05152160
▲ R744		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
R749		4822 053 11109	10Ω ±5% 2W	GA05100020
R750		4822 052 10109	10Ω ±5% 1/6W	GG05100160
R751	/02	4822 116 83929	220Ω ±5% 1/4W	GG05221140
			P701-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : R745-R748	
			P701-SEMICONDUCTORS	
D701		4822 130 83385	ZENER DIODE,HZ20-1L	HD30020010
D702		4822 130 83385	ZENER DIODE,HZ20-1L	HD30020010
D703		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
D705				
⟆		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
D712				
D713		4822 130 80318	ZENER DIODE,6.8V 04AZ5.6-Y RD5.6ES B2 MTZJ5.6B	HD30681000
D714		4822 130 80318	ZENER DIODE,6.8V 04AZ5.6-Y RD5.6ES B2 MTZJ5.6B	HD30681000
D715		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
D716		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
D717		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
Q701			UNIT & H-IC,NEW HDAM	KH269J1010
Q703		4822 130 42949	TRS.,2SA970 GR OR BL	HT109702A0
Q704		4822 130 43233	TRS.,2SC2240 GR OR BL	HT322402A0
Q705		4822 130 42949	TRS.,2SA970 GR OR BL	HT109702A0
Q706		4822 130 43233	TRS.,2SC2240 GR OR BL	HT322402A0
Q707		4822 130 43283	TRS.,2SC2705 O OR Y	HT327052A0
Q708		4822 130 42999	TRS.,2SA1145 O OR Y	HT111452A0
Q709		4822 130 42999	TRS.,2SA1145 O OR Y	HT111452A0
Q710		4822 130 43283	TRS.,2SC2705 O OR Y	HT327052A0
Q711		4822 130 43283	TRS.,2SC2705 O OR Y	HT327052A0
Q712		4822 130 42999	TRS.,2SA1145 O OR Y	HT111452A0
▲ Q713		4822 130 63634	TRS.,2SA1837 O OR Y	HT118372A0
▲ Q714		4822 130 63634	TRS.,2SA1837 O OR Y	HT118372A0
▲ Q715		4822 130 43015	TRS.,2SA1216 Y OR P	HT112162B0
▲ Q716		4822 130 43015	TRS.,2SA1216 Y OR P	HT112162B0
Q717		4822 130 43233	TRS.,2SC2240 GR OR BL	HT322402A0
Q718		4822 130 42949	TRS.,2SA970 GR OR BL	HT109702A0
			P701-MISCELLANEOUS	
L701	/02B	4822 157 63085	AIR COIL,SPK	ML08010010
L701	/02G	4822 157 63085	AIR COIL,SPK	ML08010010

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			P751-IDLING SENSOR R CIRCUIT BOARD	
Q702		4822 130 60526	TRS.,2SD1508 DARLINGTON HFE>4000	HT415080A0
			P801-POWER SUPPLY CIRCUIT BOARD	
			P801-CAPACITORS	
▲ C801				
⟆		4822 124 12277	ELECT,2200μF M 35V FOR AUDIO	EB22803580
▲ C804				
C805				
⟆		4822 124 22238	ELECT.,100μF 25V ARA	OA10702550
C808				
C809		4822 124 90356	ELECT.,1000μF M 35V RA-2	OA10803520
C810		4822 124 90356	ELECT.,1000μF M 35V RA-2	OA10803520
C811		4822 124 90365	ELECT.,220μF M 25V RA-2	OA22702520
C812		4822 124 90365	ELECT.,220μF M 25V RA-2	OA22702520
C813		4822 124 41543	ELECT.,1μF M 50V RA-2	OA10505020
C814		4822 121 42754	FILM,0.01μF±5% 50V	OF15103010
C815		4822 122 30043	CER.,0.01μF -80%-20% 50V	DK18103310
▲ C816		4822 126 12453	CER.,0.01μF +80%-20% 500V	DK18103560
			P801-RESISTORS	
▲ R801		4822 050 21108	1Ω ±5% 1/2W	GG05010120
▲ R802		4822 050 21108	1Ω ±5% 1/2W	GG05010120
▲ R805		4822 052 10478	4.7Ω ±5% 1/6W	GG05047160
▲ R806		4822 052 10478	4.7Ω ±5% 1/6W	GG05047160
▲ R808		4822 052 10478	4.7Ω ±5% 1/6W	GG05047160
▲ R810		4822 052 10229	22Ω ±5% 1/6W	GG05220160
			P801-RESISTORS (COMMON)	
			CARBON FILM FIXED RES.	
			±5% 1/6Ω : R803 R804 R807	
			P801-SEMICONDUCTORS	
▲ D801				
⟆		4822 130 80839	DIODE,S5688G VRM=400V IO=1A	HD20029050
▲ D808				
D809		4822 130 83385	ZENER DIODE,HZ20-1L	HD30020010
D810		4822 130 83385	ZENER DIODE,HZ20-1L	HD30020010
D811		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
▲ D812		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
⟆				
▲ D814				
		4822 130 80839	DIODE,S5688G VRM=400V IO=1A	HD20029050
D817				
D818		4822 130 32191	ZENER DIODE,RD7.5EB3 1/2W	HD30042060
D819		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
▲ D820		4822 130 80839	DIODE,S5688G VRM=400V IO=1A	HD20029050
▲ D821		4822 130 80839	DIODE,S5688G VRM=400V IO=1A	HD20029050
▲ Q801		4822 130 63292	TRS.,2SD1417	HT41417100
▲ Q802		4822 130 63291	TRS.,2SB1022	HT2*022100
Q803		4822 130 42835	F.E.T.,2SK246 GR	HF202461C0
Q804		4822 130 42835	F.E.T.,2SK246 GR	HF202461C0
▲ Q805		4822 130 63292	TRS.,2SD1417	HT41417100
Q806		4822 130 42835	F.E.T.,2SK246 GR	HF202461C0
			P801-MISCELLANEOU	
▲ G801		4822 121 20263	NOISE KILLER 0.47μF + 6.8Ω	BF47400010
			P891-RECTIFIER CIRCUIT BOARD	
▲ D891		4822 130 50315	DIODE,S10VB-20 10A 200V	HE20014290
▲ G891		4822 121 20263	NOISE KILLER 0.47μF + 6.8Ω	BF47400010

(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, ••:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			P901-SPK. PROTECTOR CIRCUIT BOARD	
			P901-CAPACITORS	
C901		4822 121 42754	FILM,0.01μF ±5% 50V	OF15103010
C902		4822 124 22698	ELECT.,47μF M 25V RA-2	OA47602520
C903		4822 122 40617	CER.,0.1μF +80 -20% 50V	DD38104010
C904		4822 124 22571	ELECT.,10μF M 50V RA-2	OA10605020
C905		4822 124 22698	ELECT.,47μF M 25V RA-2	OA47602520
C906		4822 124 22273	ELECT.,0.47μF M 50V RA-2	OA47405020
C907		4822 122 40617	CER.,0.1μF +80 -20% 50V	DD38104010
C908		4822 124 41535	ELECT.,100μF M 25V RA-2	OA10702520
C909		4822 124 41534	ELECT.,10μF M 25V RA-2	OA10602520
C911				
⟆	/02	4822 121 10791	FILM,0.018μF ±5% 100V APSV	OF15183540
C914				
▲ C951		4822 124 80955	ELECT,680μF M 80V AUDIO	EB68708010
▲ C952		4822 124 80955	ELECT,680μF M 80V AUDIO	EB68708010
▲ C955		4822 124 12275	ELECT.,470μF M 100V RA-2	OA47710020
C956		4822 124 90355	ELECT.,100μF M 50V RA-2	OA10705020
C957		4822 124 90355	ELECT.,100μF M 50V RA-2	OA10705020
▲ C958		4822 124 11533	ELECT.,1μF M 100V RA-2	OA10510020
C959		4822 121 42754	FILM,0.01μF ±5% 50V	OF15103010
			P901-RESISTORS	
R914		4822 053 10331	330Ω ±5% 1W	GA05331010
R915		4822 053 10331	330Ω ±5% 1W	GA05331010
R916				
⟆		4822 052 10478	4.7Ω ±5% 1/6W	GG05047160
R919				
R928		5322 116 55263	820Ω ±5% 1W	GA05821010
R929		5322 116 55263	820Ω ±5% 1W	GA05821010
R955		4822 052 10101	100Ω ±5% 1/6W	GG05101160
▲ R956		4822 052 10478	4.7Ω ±5% 1/6W	GG05047160
▲ R957		4822 052 10101	100Ω ±5% 1/6W	GG05101160
▲ R959		4822 117 10158	1Ω ±5% 1/4W	GG05010140
R960		4822 117 11858	METAL,150Ω ±5% 3W	NK05151030
			P901-RESISTORS (COMMON)	
			CARBON FILM FIXED RES.	
			±5% 1/6W :	
			R901-R913 R920--R927 R958	
			P901-SEMICONDUCTORS	
D901		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
D902		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
D903		4822 130 80837	DIODE,HSS81TD 150V 150mA	HD20027010
D904		4822 130 33948	ZENER DIODE,5.6V	HD30561000
D905		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
▲ D951				
⟆		4822 130 80839	DIODE,S5688G VRM=400V IO=1A	HD20029050
▲ D966				
D967		4822 130 33433	ZENER DIODE,RD24E B4 1/2W	HD30056060
D968		4822 130 32362	DIODE,1SS176 MA165 1SS254 30V 0.1A	HD20002000
Q901		4822 209 83312	IC,TA7317P	HC10042050
Q902		4822 130 42835	F.E.T.,2SK246 GR	HF202461C0
Q903		4822 130 43233	TRS.,2SC2240 GR OR BL	HT322402A0
Q904		4822 130 43233	TRS.,2SC2240 GR OR BL	HT322402A0
Q905		4822 130 60117	TRS.,2SC3419 Y 40V 0.8A PC=1.2W 5W	HT334191Y0
Q906		4822 209 83679	IC,NJM2904 DUAL OP-AMP	HC10030090
▲ Q951		4822 130 63292	TRS.,2SD1417	HT41417100
Q952		4822 130 42835	F.E.T.,2SK246 GR	HF202461C0
			P901-MISCELLANEOUS	
L901		4822 280 70354	RELAY,VB 24MBU-510 5A 240VAC	LY20240310
L902		4822 280 70354	RELAY,VB 24MBU-510 5A 240VAC	LY20240310

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
L903		4822 280 20501	RELAY,MR62-24SR 24V	LY20240410
			P951-POWER SW.	
			CIRCUIT BOARD	
▲ C951		4822 121 43732	FILM,0.01μF 250V AC	DF77103500
▲ S951		4822 276 12647	PUSH SW.,ESB-99753V-4 TV-8	SP01011470
			P981-AC OUTLET	
			CIRCUIT BOARD [F VERSION]	
▲ J981	FN	4822 265 31113	JACK,3P AC OUTLET	YJ04001950